A COMPLETE GUIDE TO CHURCH BUILDING

P. E. DUBROUGHS

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BY
P. E. BURROUGHS

ILLUSTRATED

(architecture)
~~Sunday schools~~
Church ~~School~~ Building
Religious Educat
with

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To the Memory of
HARDY MARSHALL BURROUGHS
and
VIRGINIA DUVAL BURROUGHS
In Token of a Son's Love and Gratitude

11124

"Ah, to build, to build,
That's the noblest Art of all Arts;
Painting and sculpture are but images—
On stone or canvas, having in themselves
No separate existence. Architecture,
Existing in itself, and not in seeming
A something it is not, surpasses them
As sustance shadow."

—LONGFELLOW (*Michael Angelo*)

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CHURCH BUILDINGS USED FOR ILLUSTRATIVE PURPOSES IN THIS VOLUME

Birmingham, Ala., First Methodist Episcopal Church, South.

Birmingham, Ala., Southside Baptist Church.

Charleston, S. C., Citadel Square Baptist Church.

Donelson, Tenn., Baptist Church.

El Dorado, Ark., First Baptist Church.

Gadsden, Ala., First Methodist Church.

Harlan, Ky., First Baptist Church.

Knoxville, Tenn., First Baptist Church.

Lewisburg, Tenn., First Baptist Church.

Lexington, Ky., Central Christian Church.

Louisville, Ky., Highland Presbyterian Church.

Moultrie, Ga., First Methodist Episcopal Church, South.

Nashville, Tenn., First Baptist Church.

Nashville, Tenn., First Presbyterian Church.

Nashville, Tenn., Immanuel Baptist Church.

New Liberty, Ky., Baptist Church.

Norfolk, Va., Freeman Street Baptist Church.

Norman, Okla., University Methodist Episcopal Church, South.

Rochester, N. Y., Lake Avenue Baptist Church.

San Diego, Cal., First Baptist Church.

Shreveport, La., First Baptist Church.

Springfield, Mo., First Baptist Church.

St. Louis, Mo., Third Baptist Church.

Washington, D. C., Calvary Baptist Church.

Washington, Ga., Baptist Church.

Winston Salem, N. C., First Baptist Church.

A COMPLETE GUIDE TO CHURCH BUILDING

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Chapter I

THE CHURCH BUILDING

Water poured into a vessel assumes the shape of the vessel, becoming round or square or otherwise according to the form of the receiving vessel. Not so quickly and yet scarcely less really a congregation is influenced by the building which it occupies. By its spacious dimensions the building may challenge to larger service; by its true lines and its noble proportions it may inspire sentiments of truth and nobility; by its thoughtful and appropriate provisions it may set forward the efforts of earnest teachers and loyal workers; by its impressive dignity it may be a material aid to worship; by its noble and imposing exterior it may appeal to multitudes of passers-by.

The church building and the preacher! Our buildings go far to make and unmake preachers. More than one minister has found in the building in which he stands to preach an indefinable up-pull, an inspiration and even a challenge to match the fineness and dignity of the building with a correspondingly sober and worthy presentation of the heavenly message. A preacher of rare charm and power has confessed his indebtedness to the auditorium in which he ministers, declaring that the great arch

beneath which he has stood to preach, the graceful reaches and the fine architectural lines of the impressive audience room, are a ceaseless appeal to him to deliver worth-while messages in a worthy manner.

The church building and worship! Sensitive at all times to its environment, deeply influenced always by its surroundings, the worshipping soul is peculiarly responsive to the suggestions of the building in which worship is rendered. Have we not walked into church buildings which instantly and in some unaccountable way appealed to our worship-instinct? We felt an impulse to pause, perhaps, to bow the knee, in reverent worship. Certainly the Father seeks as worshippers such as worship in spirit and in truth, and the time now is, "When neither in this mountain nor yet at Jerusalem shall men worship the Father." But the time has not passed, will never pass, when the soul will not be influenced and impressed by the nature of the building in which worship is rendered.

The church building and evangelism! Does the church building have a bearing on evangelism? A seminary president who constantly stresses the winning of souls said to a building committee which was planning a new church: "Build for evangelism; I have but one injunction; build for evangelism." It would be interesting to know just what was in his mind. It is suggestive that eminent evangelists without exception give careful personal attention to the buildings in which they are to preach. No detail escapes them,—light, ventilation, entrances, exits, the location of the choir, the width of the aisles, every detail has painstaking attention.

The church building and fellowship! The modern church must serve the whole man and the very building must somehow express the purpose to minister to the

social side as well as to other phases of the community's need. We say fellowship because when "social life" is mentioned, there are those who think only of socials and entertainments. Fellowship is a great gospel word. The early Christians "continued in the Apostles' doctrine and fellowship and the breaking of bread." Fellowship is of the essence of the gospel. The very building may inspire fellowship by its spacious porches and lobbies, its wide aisles, its inviting atmosphere. Yes, and its kitchen! The story is told of a leading hotel in a southern city which was designed by a well-known architect, and when the contract was to be let it was somehow discovered that there was no kitchen! A hotel without a kitchen! The time is quickly coming, if it has not already come, when it will seem quite as incongruous to think of a church building, especially one of large dimensions, without a kitchen. The kitchen, the tea-room and the banquet hall are essential in any well-designed modern church building.

The church building and the Sunday school! The history of the modern Sunday school may easily be traced in its influence on the church building. At first the Sunday school was forbidden the use of the church house; then the Sunday school was tolerated in the church house; then in recent years, the Sunday school has transformed the church house, so that the modern church building bears scant resemblance to its predecessor of days gone by. Examine a dozen of the great books which treat church buildings; you will find that almost without exception the authors regard the church building and the church auditorium as synonymous terms. For generations past the church building has been primarily an auditorium to which all other parts were secondary and

subordinate. One of these books of recent issue lies before me as I write. After devoting many chapters to an able discussion of the auditorium in its various phases, the author reminds us, lest we should overlook it, that in most modern churches there is a great variety of other concerns besides those of worship. All these he dismisses with the remark: "These must not be forgotten." Our artists, our art critics, our architects are of course primarily concerned with the auditorium. With them the auditorium is likely to be "the church." But the New Testament sets forth two coordinate agencies for the spread of the gospel, preaching and teaching. We must build both for the preacher and the teacher. The educational section of our churches must be devised with the same care, the same attention to details, and with something of the same artistic skill which have marked our auditoriums.

The church building and the unchurched! The building may be a silent witness, an effective voice, to the multitudes who pass by, the hurrying, perhaps heedless, people who come and go. Where tens enter for worship, hundreds, and possibly thousands, pass and look upon the outside of the building. If men are to form their conceptions of religion partly from the buildings erected by the churches, it is worth while to exercise care that our church buildings shall, by their location and their architecture, worthily express the mission and dignity of Christianity. Religion may well call art and architecture to her aid in her effort to meet and hold the attention of men. In these days when diverting voices multiply, when men are distracted and confused by many appeals, the churches may well avail themselves of the attracting power of good art and noble architecture.

Worthy buildings, well located and impressive, offer strong attraction for many people. This question of attracting and holding attendance goes deeper than newspaper notices and sensational themes. Without setting any one method of arresting attention over against others, we may suggest that the appeal of good art and pleasing architecture has hardly been fully appreciated.

The church building and its exterior! Is the design, the exterior appearance, a matter of concern? A reaction from elaborate and formal buildings led our fathers to an opposite extreme and they called their simple church edifices "meeting houses." They are indeed meeting houses, but are they not more? The design and appearance of the building in which we assemble to worship God can not be of indifferent concern. All buildings ought to have character and all buildings ought in their exterior appearance to give some hint of the purpose which they serve. A home ought not to be like a barn; a bank ought not to be like a millinery store; a theater ought not to be like a church; a church ought not to resemble a court-house.

A man apologized for a poorly designed building with many architectural shortcomings by saying, "Oh, only one in a hundred knows any better." The man's remark betrayed two fallacies in his thinking. It may be true that only one in a hundred knows, but it is that one whose judgment needs to be seriously considered. It is so with any art—few know, but if we care, we stand in awe of their verdict. A more serious fallacy lies in the assumption that those who do not know are therefore not affected by good architecture. We may not know in the technical sense; we may be unable in the fullest way to appreciate fine architectural lines or to detect bad lines;

but consciously or unconsciously we are affected by the architecture about us. It can not, we beg to repeat, be a matter of indifference whether our church edifices represent good architecture. We may not be able to erect costly temples and imposing cathedrals, but every consideration of propriety demands that what we build shall be honest and shall be marked by truth and integrity. It costs little more, perhaps no more, to build on right lines, lines which are correct and pleasing, than it costs to build on careless and indifferent lines.

The church whose edifice, whether it be large or small, is architecturally proper and gives evidence of refinement has a distinct advantage in any community. A group of some thirty people were seen opposite a newly erected church property intently examining its outlines. It developed that a class in architecture from a near-by university had selected this building as a type worthy of study. The number of church buildings in any city which might be so selected is not usually large. Why should not a congregation planning to build aspire to erect a building which will commend itself to people of culture and which, by the perfection and beauty of its lines, will speak of the perfection and beauty of holiness? With our increase in wealth, with our diffusion of architectural taste, and above all, with our enlightened appreciation of religion as a prime factor in our civilization, is it too much to expect that our churches will more and more in their buildings seek beauty and impressiveness, as well as practical utility? Some one has well said, "Protestants would do well to recognize a certain profound piety moving in and through the impulse to beautify the House of God and all things that have to do with the setting and scene where people meet to worship God."

Chapter II

PRELIMINARY HINTS

The suggestions offered in this chapter represent certain condensed findings which grow out of long experience. They are for the most part such as the church extension boards have long been accustomed to urge upon churches which plan to build. Many years ago the Board of Church Extension of The Methodist Episcopal Church set forth some of these proposals and these were later amplified by Mr. Kidder in "Churches and Chapels." We restate some of these suggestions and add some others which seem to be important.

Organize according to the laws of the state.—The laws differ in different states and for different denominations. Secure and act upon the advice of your attorney.

Secure the best possible lot.—This is vital to all the future interests of the congregation.

The lot should be central and easy of access. It should, of course, be a corner lot. Pay any reasonable price for a suitable location, rather than accept as a gift any inferior site. Beware of the man who for personal or real-estate consideration offers a location as a gift.

It should be ample in size. Many churches are finding serious difficulties at this point. Modern church buildings require much space. A church should, if possible, for its own sake and for the sake of its neighbors, be surrounded by open grounds. It is little less than a

tragedy to suffer a church house to cover practically all of the lot. Its title should be without flaw. Never build on a lot with a reversionary clause, or other possible hampering condition. Examine the records and see that the deed is drawn by a competent man. Let the deed be made to the church *under its corporate name,* and see that every legal detail is cared for.

Dare to go out in faith.—Few worthy church buildings could ever be erected if men insisted in advance on seeing the way through to the end. The church and the whole community will respond to the adventurous faith of men with vision. Make big plans if you would inspire a big response. Undertake something which is clearly beyond the ability of the congregation and challenge the whole community to come to your aid. It would be easy to tell of incidents which sound like the Acts of the Apostles. If necessary, build in units or sections, making progress as you are able.

Consult the Architectural Department maintained by your denomination.—All of the leading denominations offer some such service. Advice is offered without charge. Helpful literature may be had for the asking. Inquiries regarding available architects and concerning problems faced by the churches will receive prompt attention. Tentative plans will be examined with a view to improvements or economies.

Select your architect with care.—A mistake at this point may be fatal. Do not seek to economize at this point. Do not undertake to erect any kind of church building without an architect. Do not employ an architect merely because he is a local man, and, above all, do not select him because he offers his services cheaper than others, any more than you would employ a doctor for

this reason. Once you have employed an architect, trust him and treat him as your professional adviser. He will have both a personal and professional interest in your enterprise. There is, of course, distinct advantage if the architect has had experience in designing church buildings such as you propose.

Where possible, secure the architect's supervision.—The man who makes the plans can best see that they are intelligently executed. If the architect lives at such a distance that frequent personal visits are not practical, it may seem wise to employ some experienced man to inspect the work daily, calling upon the architect to make visits at special stages.

Inform yourself as regards modern ideals and the best practice in church planning.—Do not depend wholly on your architect; be able to tell him your needs and to guide him in meeting them. Modern church and Sunday-school activities call for new types of buildings. It is not safe to assume that we know until we investigate the literature and the practice of the present day.

For a survey of modern Sunday-school organization which is the basis of building requirements, see "The Church School," by W. S. Athearn, or the author's, "Building a Successful Sunday School."

Give attention to the floor plan rather than to the exterior appearance.—Insist that the architect shall prepare separate drawings showing the floor-plan arrangement, indicating the uses of all sections of the building, such as are presented in these pages. The floor plan is the crucial matter. Begin here; outline your needs and insist upon such floor plans as will meet them. We court defeat if we select first an exterior design and then subordinate to that design all floor-plan arrangements.

Consider your plan in all of its details, and when you have adopted it, do not suffer any changes.—Hastily-formed and ill-digested plans are the cause of endless troubles and disappointments. Changes made after contracts have been closed open the way for *bills of extras* and for various complications and misunderstandings.

Keep careful records and transact all business in the most accurate and business-like way.—Itemized statements should at intervals be made to the trustees, or to the church, accounting for every dollar received and expended. Let the books be carefully audited and a final complete report be made on the day of dedication. This will inspire confidence which in turn will stimulate giving.

A church building may exert direct uplifting influence on a community for many years, perhaps long after those who erect it have gone to their reward. A carefully arranged and properly designed building may radiate influence in wide circles. As some one has said, a noble building seems to have an almost living air and spirit, and may become a benign power in the lives of the people round about it. Such a building is both a material and a spiritual asset in any community. The committee which leads in the erection of a beautiful church building and the people who help to make possible such a building render a public service of inestimable value.

Chapter III

AN IMPARTIAL SCHEDULE

Modern church activities are numerous and varied. New church buildings must take account of these varied activities. The usefulness of the new building and the satisfaction which it will inspire must depend largely upon careful and judicious balancing as regards the multiplied phases of life and work for which the building is to provide.

In broad outline and with wide variation, according to the size and type of the building, the following should be considered:

The main auditorium.
The secondary auditorium.
The Sunday-school provisions.
Rooms for the young people's societies.
Rooms for social life.
A base for community service.
Rest rooms and toilets.
Administrative rooms, offices, etc.

The main auditorium.—Happily we have an established body of tradition to guide us as regards the auditorium. In Chapter IV we offer various suggestions.

The secondary auditorium.—In all larger church buildings there should be a spacious secondary auditorium for lectures, musicals and the many gatherings which for

various reasons it may not seem proper to hold in the main auditorium. This secondary auditorium should be treated with care and given a proper architectural dignity. Generally the prayer-meeting should be held in this secondary auditorium. To assign the prayer-meeting to some smaller room whose location and dimensions and treatment do not suggest dignity is to belittle one of the most important services of the church. Illustration of an admirable arrangement in this regard may be seen in the First Baptist Church, Knoxville, Tenn. (See page 158), and the proposed First Baptist Church, Winston-Salem, N. C. (See page 101), where the prayer-meeting is assigned to large and impressive rooms which are treated with much care. The secondary auditorium should generally be used as an assembly room for one of the advanced departments.

The Sunday school provisions.—We assume in these pages that the church building is erected primarily for the preaching and the teaching services of the church. It is, of course, impossible to suggest any rule which would apply in all cases, but generally provisions should be made for at least as many people in Sunday school as can be accommodated in the main auditorium. This involves the providing of about twice as much floor space for the Sunday school as is used for the main auditorium, since in Sunday-school work we require both assembly space and space for class rooms.

Rooms for the young people's societies.—Provision for the young people's society, or societies, must not be overlooked. Happily, proper provision for the Sunday school will in some measure assure also suitable quarters for the young people's organizations. The Young People's Department Hall and other department rooms may

be used by the young people in their training services and for their social functions.

Rooms for social life.—Provisions for preaching, for teaching and for social life must receive proper relative emphasis. Are there buildings which seem to lend themselves almost exclusively to the preaching service? Possibly there are church buildings which are little more than mere Sunday-school houses. As yet we have perhaps not developed buildings which overemphasize the social side. Certain it is that the ideal church building will offer a reasonable balance as between these three great lines of service. No one of them can safely be neglected and no one of them must dominate the building.

The same floor space must generally be used both for social purposes and for Sunday-school use, as is suggested in the plans presented in this book. We saw recently the floor plans for a great church plant which it is expected will cost well on toward a million dollars and which will be an outstanding building in the whole country. No space in the plans was marked "parlor" or "social." A large kitchen was provided adjacent to the Adult Department with the idea that by the clearing of chairs any room or rooms in that department might readily be made available for banquets or for other social functions. Kitchenettes were provided near each of the other departments with the evident intention of using the department rooms for serving and other types of social life.

A base for community service.—A church may introduce many features of community service without undertaking to be in the full sense an "Institutional Church." It is possible that full provision for the varied work of the modern Sunday school will insure needed rooms and

arrangements for any desired ministries. These questions should have due attention in advance. Let the main auditorium be kept sacred to the purpose of preaching the Word. If possible, provide elsewhere in the building for community needs, such as lectures, entertainments, recreations, social life, educational or uplift meetings, Daily Vacation Bible Schools, anything and everything which the church conscience approves as making for the betterment of the moral, social and religious life of the community. Let the building be open seven days, and particularly seven evenings, each week. It will be better for the young people to make appointments to meet each other in "the reading room of the church" than in the moving picture show. It is good for weary and burdened people to know that they can turn into the church to "rest and pray," and it may also be good for gay young people to know that they will find there suitable rooms for diversion and play.

Rest rooms and toilets.—These should be located and arranged with careful attention to all details. Generally the toilets should be placed on the ground floor, with a limited provision on the upper floor for emergency uses. Toilets should not open from main corridors, and toilets for men and for women should be in clearly separated sections of the building; at least one lavatory should be provided in each toilet room. Suggestions in these respects may be gleaned from the drawings presented in these pages.

Administrative rooms, offices, etc.—As church activities and ministries multiply, the church must provide increasingly for its own administrative needs. Besides the "pastor's study," which should generally be a place of quiet and seclusion, an office in which the pastor can

meet the public, and other offices for salaried assistants, including the janitor, may seem desirable. A special officers' room should be provided in all larger church buildings. For further suggestions, see Chapter XIX.

To sum up, it would seem that the church building should provide primarily for two functions:

The Preaching Service of the Church.

The Teaching Service of the Church.

A close examination of the buildings presented in the following pages will show that full provision for these primary church functions may assure also reasonable provisions for practically all other church ministries. For example, the assembly and class rooms for Young People and Adults may serve also as social and banquet rooms; an adult class room may serve as a Deacons' Room; another adult class room may well serve as the Woman's Room. The Junior Department may accommodate the Junior Young People's Society, the Intermediate Department may serve the Intermediate Young People's Society, the Boy Scouts and similar gatherings, while the Young People's Department may accommodate the Senior Young People's Society. And thus on and on, by using the same space for duplicate purposes, it may be found that full provisions for the preaching and the teaching services practically meet every need of church life.

We are asking a hard thing.—Let us consider for a moment the difficult problems which we present to the architect in the designing of buildings which will meet our needs. We want a temple for worship, a noble and impressive auditorium. And we want an educational building, offering carefully balanced departments. And we want a community house for social and other ministries. And we want easily-accessible and carefully-

grouped administrative offices. And perhaps we want a baptistry and robing rooms. And we want toilets and other conveniences.

Now our architects know quite well how to design beautiful auditoriums for worship; they have through the years developed a body of tradition and a wealth of precedent to guide as regards the place of worship. They know well how to design school buildings, and by necessary adaptations they can plan the educational buildings which we need. With a careful study of our needs, they can so design our educational buildings as to afford necessary space for parlors, offices, toilets, and our various requirements. If we asked for two buildings, one for worship and one for education and social life, our architects might readily meet our needs. But we do not want two buildings; we want *one building,* one unified harmonious structure in which will be blended the temple for worship and the educational building. We want in this one building a delicate balance of provisions and a careful plan of intercommunication so that there may be easy and quick passage between the educational building and the place of worship. The head of the Architectural Department in a great university facing a statement of these demands declared: "You offer to my profession one of the most difficult problems it has ever faced. Your problem is a challenge to the architects of this country."

Even so, we have not fully stated the case. We have assumed that since they are familiar with ordinary educational buildings, our architects can by necessary adaptations plan the departmental buildings which the Sunday school demands. But to do so in a happy and satisfactory fashion is no easy task, as any architect will testify

who has seriously undertaken it. Turning to the description of the departmental units presented on page 46, it would perhaps seem an easy thing to group those units into a blended and harmonious building. Glancing at the designs presented in these pages, they would seem to be simple and easy to develop. Similarly when we see a puzzle solved, there seems to be no puzzle. When we read the proverbs of Solomon or the parables of Jesus, they seem so simple and self-evident that one might feel that he himself could frame proverbs or write parables. If, however, he undertakes to make a proverb or state a parable his illusion is quickly dispelled. Perhaps the most serious peril which confronts us in the designing of modern church buildings lies in the failure to see that difficulties and perils confront us at every turn.

A New Architecture for Modern Churches.

In view of the varied demands made upon church buildings, a new architecture may be needed to meet our needs. Thoughtful architects are giving this question serious consideration. Mr. C. C. Bulger offers thought-provoking suggestions in the following paragraphs which were written in response to a request from the author for a statement of his views:

"The present prevailing types of architecture grew out of the needs and conditions of the times in which they were developed and of the church life which they were designed to house. Since the times have changed and church life and activities are widely different, the types of church architecture must also change.

"The fundamental reason for abandoning Gothic architecture for churches of the progressive type is that it is not adaptable. It subordinates utility to form. As

expressed in lines it is vertical, whereas the enlarging progressive church requires horizontal architecture. But even the horizontal Classic is becoming too restricted for use in clothing the modern church, and an entirely new type is demanded. It is the opinion of the writer that any established style of architecture is an anachronism when applied to this problem. It is manifestly improper to subordinate the plan to the design, and yet no established form of architecture permits the freedom of treatment required."

Chapter IV

THE AUDITORIUM

The auditorium, providing for worship and the preaching of the Word, must always be the central feature of the church building. Happily we have here a well-established body of tradition and practice to guide us, and hence we may content ourselves with the offering of some more or less obvious suggestions.

A hint as to proper proportions may be gained by the carrying power of the human voice. The voice carries proportionately about as follows: Directly in front of the speaker, ninety feet; directly at one side, fifty feet; directly behind, thirty feet (Kramer). Thus if the carrying power of the voice alone is taken into consideration, the ideal auditorium would be proportioned about as follows: Depth, ninety feet; width, one hundred feet. But the power of the speaker's eye and other considerations would favor a greater relative depth. Mr. Geo. E. Merrill* suggests that "a room oblong in plan, with the pulpit at one end, gives at once a form within which the sense of a worshipful atmosphere is most easily produced and in which the maximum number of individuals can see and hear." In agreement with Mr. Merrill, Dr. Von Ogden Vogt says: "In any case, an oblong space is superior to a square one. There are few successful equilateral churches in the world and the most of these are strongly modified as to interior proportion by the

*"Planning Church Buildings."

addition of an apse or choir. . . . The square interior makes a focal point of interest almost impossible. It hinders concentration of attention and of action." The buildings presented in these pages offer carefully devised auditoriums whose dimensions seem proper for evangelical churches.

The pulpit-in-the-corner idea is to be avoided.—This idea came with the effort to provide a secondary auditorium for the Sunday school which could open into the main auditorium. In order that the pulpit might command both rooms, it was moved into the corner. The arrangement has never proven satisfactory either from the practical or the architectural standpoint. In his discriminating book, "Art and Religion," Dr. Von Ogden Vogt has the following trenchant word regarding this combination type of building:

"By some terrible invasion of a desire for a practical building, a combination building, there appeared in this style the device of a square church, having the pulpit in one corner so that the opening of great folding doors could combine a Sunday-school hall with the church auditorium. No invention was ever more frightful. No artist would dream of focusing attention to the corner of a square room. Sitting askew of the cardinal points puts a slant into your very morals. And the circular pews make one feel as though he were in a clinical laboratory. The prominence of organ pipes on one side and the dreary barren waste of folding doors on the other constitute a composition in disharmony and impropriety almost positively demoralizing. The buildings of this style stand on one side of a deep and wide gulf from anything that could remotely be connected with the world of fine arts."

Vestibules sufficient in number and ample in size should be provided.—Such vestibules are worth far more than their cost. They lend an air of welcome; they provide waiting rooms for people who arrive during prayer or such other parts of the service as may delay the incoming congregation; they encourage sociability; they enable the audience to pass out quickly when the service is over. When the size of the building will justify, a vestibule extending entirely across the front of the audience room is desirable.

Stairways.—The thoughtful architect will give careful attention to the exits and entrances, and especially to the stairways, with a view to facilitate the movement of the people and to avoid all possible congestion. Mr. Kidder * suggests that stairs leading to the audience room and the stairs to the gallery should not be less than four feet wide for the entrance of fifty people and that six inches should be added to the width for every one hundred people. Six-inch risers with twelve-inch tread are generally favored for stairways in churches.

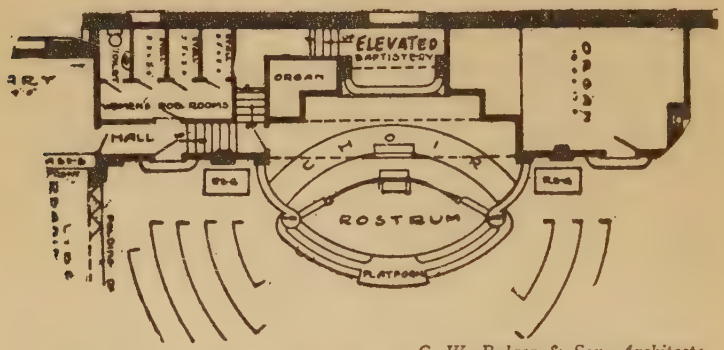
Doors.—In many states the law requires that outside doors shall swing out. The reason for this is that in case of fire or any sudden panic, the people may not be trapped by the doors.

The pulpit platform.—If the floor is bowled, the platform may well be the same height as the floor at the rear end of the building. In an auditorium 40x50 feet, eighteen inches is a suitable height; in an auditorium 60x70 feet, the platform may be thirty inches high. A high platform renders the front seats undesirable, and a tier of vacant seats around the pulpit is difficult both for the preacher and the choir. The platform should be

*"Churches and Chapels."

higher when the floor is level than when the floor is inclined.

The platform should be at least six and a half feet deep and twelve feet across; a depth of seven or eight feet is desirable. In small churches, sittings should be provided for at least six people, and in larger buildings correspondingly larger platform space should be provided.



—C. W. Bulger & Son, Architects.

PULPIT ARRANGEMENT, FIRST BAPTIST CHURCH, SHREVEPORT, LA.
(Showing a lower secondary platform in front of the rostrum.)
See cut showing this development, page 178.

An entrance to the platform should be provided from the side or rear so that the pastor and the choir will not have to come into the auditorium and climb the steps in the presence of the audience.

A secondary platform somewhat lower than the main rostrum may well be provided. Evangelistic pastors and preachers especially are demanding such a platform to which they may descend for the reception of members, for the administration of the Lord's Supper and similar services.

Provision should be made for a choir in proportion to the numbers to be accommodated in the auditorium. Such

provision is needed for special revival meetings, even if it is not required every Sunday. Dr. Von Ogden Vogt* says a timely word regarding church music as follows:

"A so-called chorus choir, even a small one, is far better than a quartet. The quartet may produce superior music; it is usually inferior in devotional feeling. The chorus is less professional and more worshipful, both in appearance and style of singing. Altogether too much church music, especially as produced by the quartet, somehow has the aspect of concert numbers. Music in the service should rather give the impression of an indispensable and closely-woven part of the service as a whole. No music in a service of worship should ever impress one as a program number."

Good acoustic properties are of prime importance.— If the speaker experiences difficulty in speaking, or the singer in singing, or if the hearer finds difficulty in hearing, a chief end of the building is defeated. Happily modern architecture has measurably mastered the once baffling question of acoustics. And yet even in our day mysterious difficulties and grievous disappointments are not uncommon. One eminent divine thus strongly puts it: "Acoustics is so important that I would place it before every other merit; before light, or ventilation, or comfortable seats, or beauty, or any virtue. Give us churches in which the human voice can be heard with pleasure and profit." Cement and steel lath construction are both liable to introduce acoustical difficulties and should be handled with care. The steel lath which has recently come to be so much used may act as a drum head and may cause serious acoustical troubles. There are types of structures and methods of treatment well

*"Art and Religion," page 176.

known to experienced architects which furnish reasonable security as there are well-tested means for remedying acoustical defects.

Acousticons may be provided.—Every auditorium, whether large or small, should be provided with an apparatus for the convenience of partially deaf people. This consists of an electric apparatus with receiver at the pulpit stand and ear pieces at various points in the auditorium so that the deaf need not be congregated at any one point. All that is required to use these instruments is for the person to apply the ear piece to his ear and the speaker may be heard satisfactorily.

The lighting of the building is an important feature.—The ideal is a soft sufficient light. Undue brightness and funereal gloom are to be alike avoided. Electric light by the indirect method is most desirable. In the matter of first cost and of current consumed, this method is somewhat expensive. The increased expense is more than justified by the restfulness and satisfaction produced by this method of lighting. Second to the indirect method is the semi-indirect method in which the lamps are all concealed behind glass of a diffusing character.

Ventilation is a vital factor in the worship service.—Besides the usual window ventilation, there should be an opening in the ceiling of the auditorium with a convenient device for opening and closing, and connected with the outside to permit the escape of hot air which collects in the upper part of the building. The attic space should also be vntilated through the apex of the room, and also at the eaves, to promote a circulation of air. All space under floors should also be ventilated.

The systems of artificial ventilation and of artificial cooling generally call for the closing of windows and

doors. For this reason they have met with only partial success. In the southern sections of our country there is probably no substitute for the direct window ventilation supplemented by direct fans. Fans of various types, "buzzers," ceiling fans, or fans on pedestals, can be installed in churches without materially marring the architectural effect. They contribute much to the comfort and popularity of an auditorium.

Balconies constitute a desirable feature in all larger buildings.—Mr. Kidder suggests that any audience room seating three hundred persons will usually have sufficient height of ceiling to admit of a balcony across the back of the room, and that the room which provides for the seating of four hundred people will usually admit of a balcony around three sides. A spacious balcony will increase the seating capacity by one-third to one-half. Naturally the balcony will be unused on ordinary occasions as the congregation will fill in below. Neither the people nor the preacher feel any special depression because the balcony is not occupied, such as they feel if a large space on the main floor is not occupied. High balconies tend toward formality and are to be avoided in evangelical churches. The balconies should therefore be as low as the general design and the comfort of those who must sit beneath will permit. Where balconies are constructed on three sides of an auditorium, it is better that they should offer continuous and unobstructed space than that they should be divided into three distinct sections. Illustrations of excellent balconies may be found throughout these pages. The arrangement in the First Baptist Church, Knoxville, Tenn., where no posts appear either in the balcony or on the floor below, is especially good. See pages 152 and 157.

Chapter V

BUILDING FOR THE SUNDAY SCHOOL

We present in this chapter an outline of needed provisions for the Sunday school. The proposals which we here present are illustrated in the various building designs offered in later chapters.

The Sunday School as a Whole

Such general assemblies of the school as may seem desirable should be held in the main auditorium.—We offer in this connection the following suggestions:

It is generally impracticable to provide two large auditoriums. The Sunday-school attendance is now very generally as large as that of the preaching service; in many communities the Sunday-school attendance much exceeds that of the preaching service. Even if it were practicable, it is not desirable to provide two auditoriums. The departmental Sunday school needs for serious reasons to assemble at least occasionally in the auditorium where the pastor preaches and the congregation worships.

In larger schools, the emphasis is placed on departmental work with a decreasing emphasis on the general assembly. This would seem to be the logical and inevitable trend. It is an essential step toward making the Sunday school a real school. It makes possible graded worship, worship adapted to the various life periods.

Thus the entire Sunday-school hour can be utilized for effective educational effort.

The traditional difficulties associated with the holding of the Sunday-school session in the main auditorium disappear when the Sunday school meets in departments and comes together only for a brief season. "Is it fair to the children for the church to construct a costly and beautiful house of worship and then proceed to conduct the exercises of worship for children in another part of the building not nearly so beautiful? . . . In any case, the superior dignity and beauty of the church building itself should be brought to bear as an influential force upon the lives of the children. It is throwing away a great opportunity not to do this." The necessity and desirability of using the main auditorium for all general assemblies of the Sunday school are now generally recognized among leaders in religious education. Prof. H. F. Evans has quite clearly stated the case:* "The whole school will meet in general assembly only occasionally, not over seven or eight times a year. A large auditorium should not be built to be used on so few occasions. Where shall these sessions be held? The obvious answer is, in the church auditorium. Some may object at once; the church proper should not be used for children's exercises lest reverence be destroyed. One of the important duties of the church school is to develop a sense of reverence in the growing child. Surely no place could be found more calculated to arouse reverence than the church auditorium."

For each pupil in the Sunday school there should be an allowance of fourteen square feet of floor space.—Sixteen square feet per pupil is the usual allowance in public-

*"The Sunday School Building and Its Equipment."

school buildings. About seven square feet may be used for class-room space and about seven square feet for assembly purposes.

Build for the ideal organization rather than for the perpetuation of present conditions.—The present organization was probably influenced by limitations which are now to be removed; it may have grown up about certain personalities. The erection of a new building offers opportunity—possibly the only opportunity which may come in a generation—to rearrange the departments and classes on a new and proper basis.

Build with a view to possible future growth.—Churches are sometimes sorely disappointed to find a new building utterly inadequate to meet their needs. A church in Texas planned on so large a scale as to create wide interest and spent several hundred thousands of dollars on its great building; and yet the church found within a year that the new building was unequal to the growing needs of the congregation. The experience of this church has been the experience of many churches in various parts of the country. The very effort to build calling out the utmost resources of the people, leads to larger devotion and to enlargement of vision which make for fuller and richer church life. A new and attractive building will itself draw many people. Modern methods are creating very large Sunday schools and large Sunday schools are in turn contributing to the enlargement of the congregations.

But how shall a given church determine the schedule of provisions which should be made? Two steps are suggested: (1) a census may be taken; (2) a careful survey may be made of the various conditions which will influence the growth or drift of population. A church

in Harlan, Kentucky, a town of some 4,000 souls, took these two steps and found that more than two thousand people looked in its direction for spiritual ministry. Believing that it was not impossible to reach its proper constituency, the church planned a building which, under pressure, would house a Sunday school of 1,500. Churches which go out in faith and build not only to meet their present needs but their prospective needs, will be rewarded by finding their new buildings adequate to serve in the new and larger day which is upon us.

The Departments

Since all general assemblies of the Sunday school may be held in the main auditorium, as has been already suggested, the special provisions required for the school are department rooms and class rooms. The ideal would seem to be to conduct the school in departments, each a miniature school, each department having its own suitable space both for assembly and for class work, while all general assemblies of the whole school as may seem desirable are held in the main auditorium.

The following points sould be guarded in the planning of department assembly rooms.

They should be practically sound-proof, so as to permit programs of worship and instruction. Movable partitions are not sound-proof and should never be used to separate departments. It is not wise to provide department rooms and then defeat the purpose which we seek by failing to make them sound-proof.

Entrance to department rooms should be from the rear or side in order that there may be a minimum of disturbance from late arrivals. It is not easy to concen-

trate the minds of children and youths on the worship program, and every diverting influence should be avoided.

Since much educational work is to be done in the departments, ample wall space should be provided back of the superintendent for maps, charts and blackboard. The practical usefulness of the department room may be much impaired if such wall space is not provided.

Department rooms should be carefully proportioned for assembly purposes. The length should never be more than one and one-half times greater than the breadth. There is no more justification for offering a department room twice as long as it is wide than there is for planning an auditorium of such dimensions. Rectangular rooms, square or nearly square, are regarded with favor.

Generally, department rooms should open into class rooms in order to facilitate the quick and easy passage of pupils back and forth. In the management of departments, especially where large numbers are involved, this closeness of relation between department and class rooms is found to be a matter of no little moment. It has thus become customary in large buildings to offer class rooms on a mezzanine floor in order that all classes may quickly reach their class rooms.

Department rooms from the Junior Department up should be so located as to permit ready inter-communication with the main auditorium in order to facilitate a quick passage of pupils to or from the department rooms. The Beginners and Primaries will usually be encouraged to spend the entire hour in their own department programs and will not assemble with the main school. The departments from the Junior up will generally be asked to come together for assembly either every Sunday or at

least occasionally, and care should be exercised to make an easy and open way between the department rooms and the place of general assembly.

Except in very large buildings a raised platform is not desirable in the department assembly rooms. Generally where "platform" is indicated in the drawings in this book, it is merely meant to show the location of the superintendent's desk and the piano.

As a measure of economy, the adults may use the auditorium as their department assembly room. In this case, the adult class rooms should be on the auditorium floor and easily accessible from the auditorium. The Young People's Department and the Adult Class Rooms may be used also for various social purposes and for banquets.

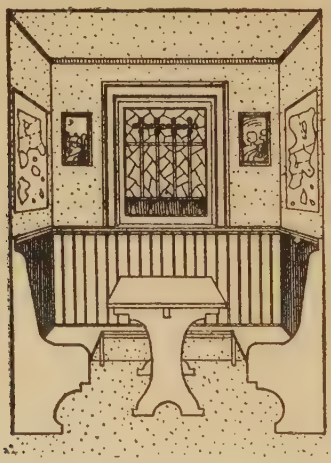
A library or book room should be provided in connection with each department room.

Class Rooms

Class rooms should be provided for all classes above the Beginners' Department. Primary Class Rooms should be 6x8 feet or 8x10 feet in size; Junior and Intermediate Class Rooms should be 8x10 feet or 10x12 feet in size. Class rooms for Young People and Adults will of course vary widely in dimensions. Class rooms for each department up through the Intermediate Department are usually made uniform in size, while class rooms for the advanced departments should vary in size since larger and smaller classes will naturally develop among adults. Class rooms should be enclosed by double-plastered walls and tight-fitting doors. Exclusion from the class room of sights and sounds is always

desirable. Class rooms should offer convenient wall space for built-in blackboard, maps and charts.

We show throughout these pages such class rooms as are indicated above for Primaries, Juniors and Intermediates. The frequent necessity of providing a very large number of rooms for these classes has led Mr. C. C.



VIEW OF SMALL EFFICIENCY CLASS ROOM.

Bulger, Dallas, Texas, to propose, as an economy measure, a small class room such as is illustrated in accompanying drawing. Mr. Bulger suggests nine to eleven feet by five and a half feet as suitable dimensions for this room. The seats and the table should be stationary.

Chapter VI

PROVIDING FOR THE DEPARTMENTS

The department room is the unit in the new type of Sunday-school building. Formerly the demand was for "rooms" and happy possessors of new buildings boasted of the number of rooms afforded by the building. Gradually the emphasis has shifted from class rooms to department rooms. A mild suspicion is now aroused by a boast of the number of rooms. The modern Sunday school is conducted departmentally. The modern Sunday school house is departmental. Hence we give attention in this chapter to the provisions required by the several departments of the Sunday school.

The departments which for years have been proposed are somewhat as follows:

Beginners, ages 4 and 5.
Primaries, ages 6 to 8.
Juniors, ages 9 to 12.
Intermediates, ages 13 to 16.
Young People, ages 17 to about 24.
Adults, ages about 25 and up.

Other proposals are made as regards the allotment of years to the departments. For example, it has been suggested that three years be allotted to the Junior Department, three years to the Intermediate Department, three years to the Senior Department and the years

eighteen to twenty-four to the Young People's Department, while the years twenty-five and up are assigned to the Adult Department. For illustrative purposes we follow in these pages the outline first offered above, proposing six departments. Since we seek to offer guiding principles and do not undertake to suggest the solution of any given problem, our proposals may be easily adapted and applied to any form of organization which may be favored.

Relative space should be allowed for each department, according to the numbers which may reasonably be expected to attend. The practical usefulness of many buildings has been impaired at this point. The numbers attending at any given time can not be a safe basis on which to decide this question. The number of years allotted to a department will usually be a safe guide as to the numbers which ought to be provided for in the department.

As a general rule, it will be safe to allow space for the departments in the following proportions, based on the number of years allotted to the departments:

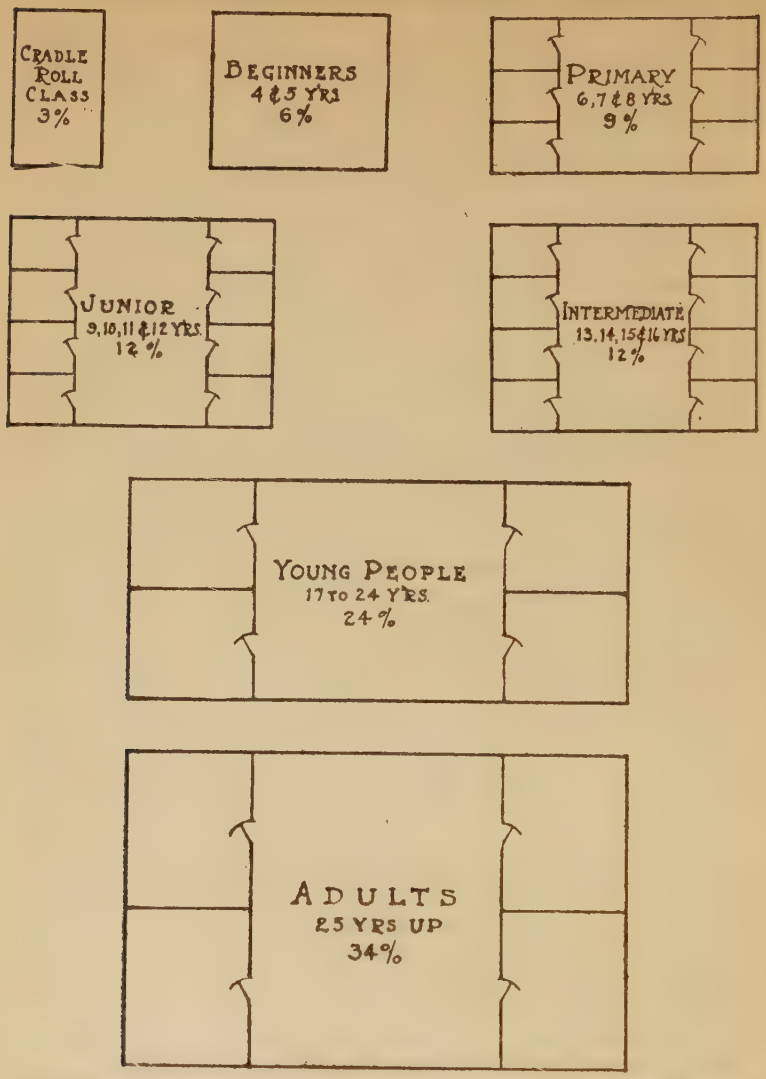
Cradle Roll Class	3 years	3%
Beginners	4 and 5 years	6%
Primaries	6 to 8 years	9%
Juniors	9 to 12 years	12%
Intermediates	13 to 16 years	12%
Young People	17 to 24 years	24%
Adults	25 years and up	34%

"The Sunday School Manual," assuming a larger attendance relatively in the lower departments, suggests the following schedule:

Cradle Roll Class	3%
Mothers' Room	3%
Beginners	6%
Primaries	10%
Juniors	14%
Intermediates	14%
Young People	20%
Adults	30%

The percentages of space to be allowed for the departments, as is elsewhere pointed out, should be based on the relative numbers which ought to be in the departments. We are planning for the next ten or twenty years, or perhaps fifty years. We are building for a future school. In the past we may have fallen far short of reaching our possibilities in the whole school or in one or more departments; the lack of space or the lack of trained leaders, or possibly the absence of vision and conviction may have caused us to neglect the enlistment of certain parts of our constituency. We do not wish to crystallize and perpetuate in the new building the mistakes or the shortcomings of the past. The percentages which we have indicated for the departments seem to offer a fair schedule for churches which are not affected by special and unusual conditions. It would seem that we ought to offer such provision as would make possible a proper and symmetrical development of our entire constituency.

If the allowance for Adults suggested above seems unduly large, we venture the following suggestions: (1) Adults may be expected to attend the teaching service of the church in far greater numbers than they have done in the past; (2) If the Adults use the main auditorium


CRADLE ROLL CLASS 3%
BEGINNERS 4 & 5 YRS 6%
PRIMARY 6, 7 & 8 YRS 9%
JUNIOR 9, 10, 11 & 12 YRS 12%
INTERMEDIATE 13, 14, 15 & 16 YRS 12%
YOUNG PEOPLE 17 TO 24 YRS. 24%
ADULTS 25 YRS UP 34%

The above drawings show the proportionate space which should be allowed for each department and suggest suitable arrangement of assembly rooms and class rooms. The number of class rooms suggested above is suitable for a school numbering 400 to 600. Schools numbering 200 to 300 should offer half the number of class rooms, while schools numbering 1,000 to 1,200 should double the number of class rooms.

for general assembly the space required is cut in half; (3) The Deacons' Room, the Choir Room and possibly other rooms may be used by Adult classes and may thus render duplicate services.

As illustrative of the necessity for a careful balancing as regards the departments and a due allotment of space for each department, we may cite a recent visit to a new church building. The great plant had cost a half million dollars and was attracting attention in many states. The officer who acted as guide and interpreter confided the information that while there was twice as much space for a certain department as is needed, other departments were inadequately housed. As a consequence the building is seriously inefficient, the symmetrical growth of the Sunday school being hopelessly hindered. It developed that no one had thought in advance to raise the question as to whether a fair allowance of space was being made for the several departments. A half million dollars of consecrated money had resulted in a disappointing building because no one had thought to raise a perfectly obvious and apparently necessary question. Because at this point is involved the best usefulness of the building, we mention another building which was planned with the utmost care. The Primary Department in particular was designed with loving thoughtfulness. The first Sunday in the new building revealed the painful fact that this Primary Department was quite too small. The case was hopeless; the Primary workers led their little children down the stairs to a basement room with cold cement floor, while an adult class occupied the beautiful room which had been prepared for them. No one had thought to raise the question as to a proper allowance of space.

The Cradle Roll Room and the Mothers' Room.—In all larger buildings a special room should be provided for the Cradle Roll Class consisting of children three years of age. The room should be separated from the Beginners' Department by a solid wall. A Mothers' Room should also be provided for a class of young mothers who may wish to be near their children.

The Beginners' Department.—For children four and five years of age, an attractive room, easy of access for the little bodies, well lighted and well ventilated, with low ceiling, should be provided, and the furnishings and color scheme should be carefully chosen. In connection with this Department, as is suggested above, separate rooms should be provided for the Cradle Roll Class and for the Mothers' Room. For illustration, see the plans presented in these pages.

The Primary Department.—Formerly it was deemed sufficient to have folding doors to divide this department into three groups for the three grades. Gradually the Primary workers have come to favor an assembly room and small class rooms, such as are shown in the plans throughout this book. These rooms may be open in front, or closed only by curtains, or preferably they may have plastered walls and regular doors. In small schools the classes may meet about small tables in the open assembly room. The thoughtful architect will give special attention to all rooms designed for little children, seeking by means which are well understood to make them attractive and impressive. An open grate and similar touches may lend an air of homelikeness.

As may be seen in many of the building plans offered in the pages which follow, the Mothers' Room, the Cradle Roll Class Room, the Beginners' Department

CRADLE ROLL CLASS ROOM, FREEMASON STREET BAPTIST CHURCH, NORFOLK, VA.

SECTION OF BEGINNERS' DEPARTMENT, LAKE AVENUE BAPTIST CHURCH, ROCHESTER, N. Y.

BEGINNERS' DEPARTMENT, HIGHLAND PRESBYTERIAN CHURCH, LOUISVILLE, KY.

PRIMARY DEPARTMENT, FIRST METHODIST EPISCOPAL CHURCH, SOUTH, GADSDEN, ALA.

This beautiful department room has been much admired. Besides the assembly room, six class rooms are provided, three on each side. Observe the large blackboard in the main assembly room and also blackboards for the class rooms. The tables and the chairs are painted white, soft tints are used for the walls and ceiling, and the general impression of the room is altogether pleasing. This same arrangement with closed class rooms would be suitable for the Junior and Intermediate Departments.

PRIMARY DEPARTMENT, FIRST METHODIST EPISCOPAL CHURCH, SOUTH, BIRMINGHAM, ALA.

Fourteen class rooms are provided, seven on each side. This same arrangement with closed-in class rooms would be suitable for Juniors and Intermediates.

PRIMARY DEPARTMENT, FIRST METHODIST EPISCOPAL CHURCH, SOUTH, BIRMINGHAM, ALA.

Showing how light and ventilation are assured by long outside windows which extend above the class rooms.

INTERMEDIATE CLASS ROOM, SOUTHSIDE
BAPTIST CHURCH, BIRMINGHAM, ALA.

—*H. L. Cain, Architect.*

THE JUNIOR DEPARTMENT, CITADEL SQUARE BAPTIST CHURCH, CHARLESTON, S. C.

See drawings on page 173.

and the Primary Department are generally arranged en suite. These rooms should not be used for social purposes or for other ends than those for which they are designed. The furnishings, the wall decorations, the varied illustrative material used in the Sunday work are such that these rooms can not easily be rearranged for other uses.

The Junior and Intermediate Departments.—The same amount of space should be provided for each of these Departments. Because of the emphasis laid upon Junior work and the better equipment which has generally been given to Junior workers, the numbers in this Department have generally exceeded those in the Intermediate Department. Wherever the Intermediate Department is given the proper emphasis and is offered suitable equipment and space the numbers in that Department are generally equal to the numbers in the Junior Department.

If in the advanced grades of the Intermediate Department larger classes seem desirable, it is always practicable to arrange to throw two class rooms together and thus secure the larger rooms which will thus be required.

Young People's and Adult Departments.—The largest freedom will be exercised and the greatest variety will be expected in providing for these Departments. We venture some suggestions:

The Adults, as is elsewhere proposed, may, as a measure of economy, use the main auditorium for general assembly. In this event the class rooms should be convenient of access from the auditorium. It is of course desirable that a separate assembly room shall be provided for the Adult Department.

Classes in these Departments will vary widely from

small groups to large numbers. They will thus vary at any given time and they will vary from time to time. In order to make possible rooms varying in size to meet this situation, movable walls may be provided between class rooms so that they may be thrown together, thus offering space for larger numbers; for illustration, see Young People's Class Rooms shown on pages 96 and 174. A better and more satisfactory plan, of course, is to provide a variety of closed-in class rooms from small to large as is shown in the drawings which appear on page 113.

Can basement floors be used?—The Sunday school had a struggle to get up out of the basement. In an earlier day when the teaching service of the church was not rated high, the Sunday school was all too frequently assigned to a damp basement which was ill-suited for all pupils, especially for little children. Thus some one said a generation ago: "To put the Sunday school in the basement is a debasement of the Sunday-school idea." Primary workers have very properly joined their voices in a plea that the little children shall be assigned rooms which are neither damp nor dark, but which permit an abundance of fresh air and sunshine. Basements, if by basements we mean rooms wholly or almost wholly sunk beneath the grade level, should never be used for educational or social ministries. They are not to be considered for any of the departments and they are, of course, unthinkable as regards little children.

The case is quite different, however, with "ground floors." These are floors which are on the level of the ground or only two or three feet beneath the level of the ground. Such floors are, as a measure of economy, widely and very properly used both for educational and

social services. If the floor is on the ground level or is sunk only two or three feet beneath the ground level, the windows should be full-size, admitting air and sunshine about as fully as second or third-story windows. Ground floors, such as we have here described, are well suited for Sunday-school purposes, and because they can be secured at comparatively low cost, they are being used in many present-day church buildings. Being on or slightly below the grade level, such rooms require little climbing of steps, while the low ceiling is not objectionable for the departments and classes. Wood floors should be laid, or cement floors should be covered with cork carpet or battleship linoleum. Proper "damp-proofing" construction will preclude dampness and discoloring of walls. It will be observed that practically all of the larger buildings shown in this book offer such ground floors.

Chapter VII

A STANDARD FOR SUNDAY SCHOOL BUILDINGS

For the sake of convenience in testing plans for Sunday-school buildings we state, in the form of a standard, some of the more important requirements which have been presented in the preceding chapters. While this statement touches only floor-plan arrangements, it is believed that buildings which practically embody these suggestions will, when designed by competent architects, satisfactorily house the departmental Sunday school.

1. A department-assembly room should be provided for each department.

2. In these department-assembly rooms the following points should be guarded:

(1) They should be practically sound-proof, thus permitting department program and worship.

(2) The department-assembly rooms should be properly proportioned for assembly program and worship. A square room or a room whose breadth is to its length as four to five, usually makes a good department-assembly room. The length should never be more than one and one-half times greater than the breadth.

(3) They should be provided with ample wall space back of the superintendent for blackboard, maps, charts and reports.

(4) The department-assembly rooms should be pro-

vided with entrances at the rear or side so that late-comers will not disturb the worship.

3. Fair relative space should be allowed for the departments. See page 46.

4. Class rooms, easily accessible from the department rooms, should be provided for all classes above the Beginners' Department.

5. Class rooms up through the Intermediate Department should comprise eighty to one hundred and twenty feet of floor space; in the advanced departments larger class rooms will be required. The length of the class rooms should not be more than one and one-half times greater than the breadth. All class rooms should have outside exposure for light and ventilation.

6. Fourteen square feet of floor space should be allowed for each pupil in the Sunday school. About seven of the fourteen square feet should be used for assembly, while about seven should be used for class purposes. If the Adults use the main auditorium for assembly, only seven square feet per person will be required for their use.

7. There should be ample and direct inter-communication between the main auditorium and the various department rooms to permit the quick passage back and forth of all pupils. This is of special importance for the departments from the Junior up, since these departments are the ones usually asked to come together for general assembly, and are expected to attend the preaching services.

8. Offices, easily accessible to the public, should be provided for the pastor, the superintendent and the secretaries, and for paid workers according to the probable needs of the school. Special provision should be made

for the janitor. A library or book room should be provided; in larger buildings, a book room should be provided for each department.

9. A kitchen and other needed provisions for serving and social life should be provided.

10. Toilets should be provided for men and for women and for little children, as may be suggested by the numbers to be accommodated.

For the sake of convenience, we condense the ten points of the standard and offer the following as a score card:

	Per cent
1. Assembly rooms for all departments	10
2. Department assembly rooms: (1) Sound-proof; (2) Properly proportioned; (3) Suitable wall space; (4) Entrance at side or rear	10
3. Proper relative space for departments	10
4. Class rooms	10
5. Class rooms of proper size, etc	10
6. Allowance of 14 square feet per pupil	10
7. Intercommunication between the auditorium and the departments	10
8. Offices	10
9. Kitchen and social provisions	10
10. Toilets	10
	100

Is this standard practically attainable?—This question will naturally arise in the minds of thoughtful workers and it must be faced by building committees. In this connection we offer some suggestions:

The standard makes no demand which is not clearly essential to the best usefulness of the building. To neglect any required point is to put a more or less serious handicap on the church community, possibly for the life-

time of the building. There may be divergence of view as regards some details, but the main points proposed are such as have been agreed upon in wide circles by practical church and Sunday-school workers.

The issues at stake would seem to justify the necessary expense involved in building according to some such standard. Is it too much to say that the very destinies of our common Christianity are dependent upon the religious training and education of our children? If we value the stability and permanence of our cherished institutions, if we are really concerned for the spread of Christ's gospel to the ends of the earth, we will lay broad and enduring foundations in the full and painstaking education of the younger generation which is soon to assume the direction of all life.

Some churches realizing that they can not at present build adequately to meet future needs are finding it desirable to build in units, making progress as they are able toward a completed building. There are manifest difficulties in such procedure, but these can be overcome. In any case since the completed building should be one building, one harmonious blended structure, the floor-plans and design of the entire building should be carefully studied and adopted before the construction of any part is begun. An entire unit of the proposed building may be erected at one time, or a section of the building, as for example the ground floor, may be erected, this being covered with a temporary roofing.

It is well always to bear in mind that thoughtful skill in the floor-plan arrangement and correctness in the design contribute far more to the satisfaction inspired by our church buildings than do expensive materials.* "A

*Dr. Vogt in "Religion and Art."

building committee need not be afraid of the cheaper grades of material. It is more important to employ a competent artist who will produce a successful design of the right proportion and scale than it is to spend the money for costly materials. A very beautiful church may be made of the cheapest brick, unplastered outside or inside, if the structure is well designed."

In the chapters which follow we present a series of buildings which practically meet and illustrate the requirements of the standard which we have proposed. Some of these buildings have been erected or are in process of erection, while others are typical designs which were produced for illustrative use in this book, being drawn in accordance with the standard which we are suggesting. These plans are offered for illustrative and educational purposes. Every building design, of course, ought to constitute an original and independent study. The architect will wish to take into consideration the location, the environment, the availability of certain building materials and the ability and tastes of the particular congregation. These and many other elements must have their bearing in the designing of any particular building.

Certain definite standards have been promulgated for secular school buildings defining the space requirements and the arrangement of rooms. These standards do not deal with elevations, but leave with the architect the development of the design. So we propose a simple standard setting forth some elemental floor-plan requirements of the church school, leaving to the architect the province which belongs to him, viz., the development of a suitable design.

We raise again our question: Can the churches build

according to the proposed standard? Anticipating this question and appreciating the difficulties which must be encountered, we offer in the following chapters certain types of buildings which measure up to the proposed standard and which yet can be erected at a cost ranging far below the cost of other buildings which offer about the same space. Churches may face the question whether they shall forego some things in the way of elegance in design in order to secure the space needed for growing church life. Earnest efforts are being made to devise buildings which practically meet the demands of the proposed standard and which yet need not be prohibitive in cost. It may be well to consult the Architectural Department maintained by your denomination.

We offer a comparative study of the cost of certain buildings offered in the following pages.

The building presented on page 69ff. offers a capacity of 600 in the auditorium and 600 in the Sunday school; the architect's estimate of cost is $69,500. The building presented on page 88ff. offers a capacity of 900 in the auditorium and 900 in the Sunday school; the architect's estimate of cost is $67,930.

Economy along certain lines accounts for the fact that the latter building with fifty per cent larger capacity than the former is estimated to cost less money. (1) Its provision for adult classes is used also for auditorium purposes, thus saving the expense of providing separate and special adult class rooms. (2) It provides no special assembly room for adults, assuming that they will hold assembly in the main auditorium and thus saves the expense of such assembly room. (3) It offers a less expensive auditorium construction in that the roof proper covers only the central space, while the side rooms

are covered by lower level roofing. (Clerestory windows light and ventilate the auditorium when the class rooms are closed.) (4) The architect finds that in general the construction of this building will be less expensive, hence he allows in this case only sixteen cents per cubic foot, while in the case of the other building he allows twenty cents per cubic foot.

The building presented on page 92ff. seats 1,200 in the auditorium and accommodates 1,200 in the Sunday school. The architect's estimate of cost is $143,844. The building presented on page 107ff. seats 1,102 in the auditorium and accommodates a Sunday school of 1,500. In this case the contract cost of the building is $121,000.

It should be said that the suggested estimates of cost might easily be misleading. They can be safely followed only in a study of the comparative cost of the various buildings. Much must depend on location, materials and other conditions which can only be known and considered locally.

Chapter VIII

STANDARD BUILDINGS FOR CHURCH AND SUNDAY SCHOOL NUMBERING 600

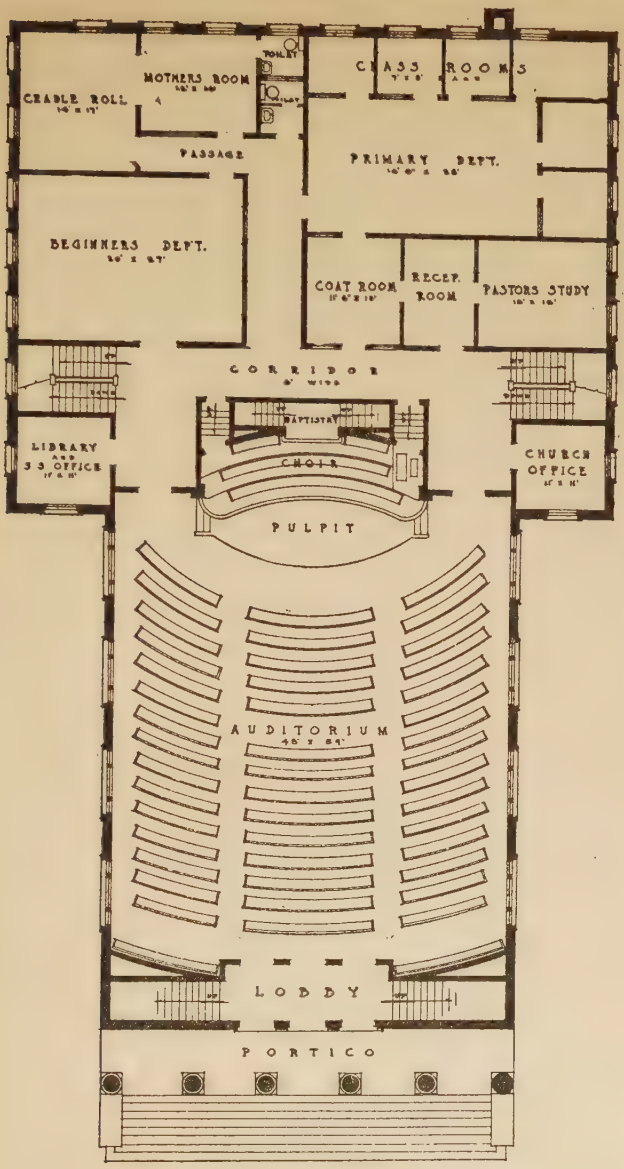
We are assuming in these pages that churches will generally wish to provide for about the same number in Sunday school as are provided for in the main auditorium. Some churches will wish to provide for larger numbers in the Sunday school, while others may not wish to make so large relative provisions for the Sunday school.

In accordance with proposals already made, the organization and provisions needed for a Sunday school of 600 would be somewhat as follows:

	Pupils	Sq. Ft.		
Cradle Roll Class.....	18	252		1 Class Room
Beginners....	36	504	Assembly Room	
Primaries.....	54	756	Assembly Room	6 Class Rooms
Juniors	72	1008	Assembly Room	8 Class Rooms
Intermediates.	72	1008	Assembly Room	8 Class Rooms
Young People.	144	2016	Assembly Room	4 (to 6) Class Rooms
Adults.....	204	2856	Assembly Room	4 (to 6) Class Rooms
	600	8400	6 Assembly Rooms	31 (to 34) Class Rooms

The building design presented in the following pages offers Sunday-school provisions as is outlined above, while the auditorium offers a total of 600 seats. Tested by the standard offered in the preceding chapter, the building makes the grade shown below:

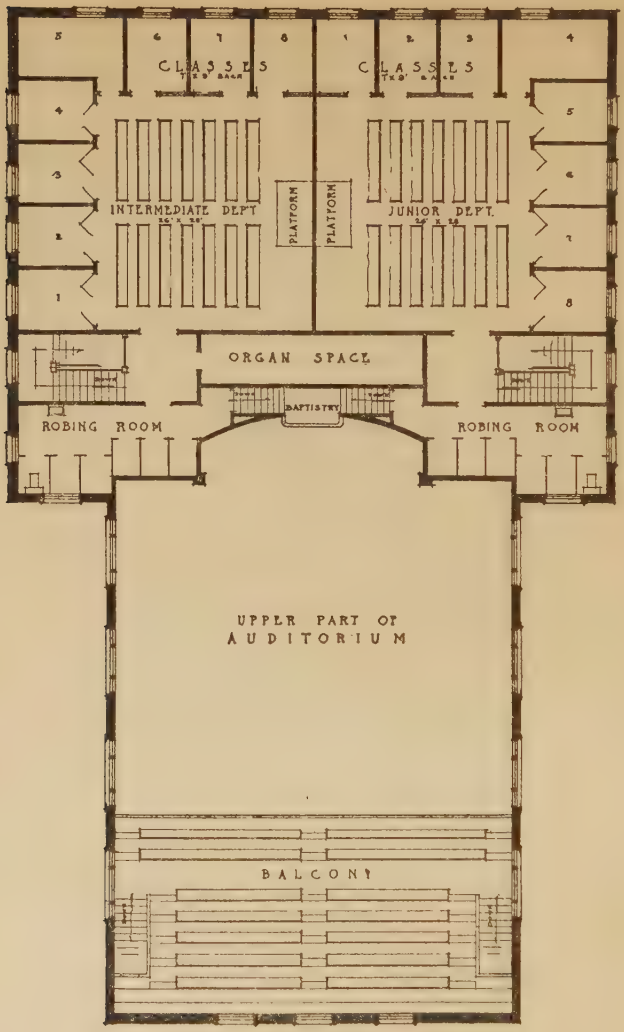
	Per cent
1. Assembly rooms for all departments	10
2. Department Assembly rooms: (1) Sound-proof; (2) Properly proportioned; (3) Suitable wall space; (4) Entrance at side or rear	9
3. Proper relative space for departments	8
4. Class rooms	10
5. Class rooms of proper size, etc	10
6. Allowance of 14 square feet per pupil	10
7. Intercommunication between the auditorium and the departments	10
8. Offices	10
9. Kitchen and social provisions	10
10. Toilets	10
	97



—*R. H. Hunt, Architect.*

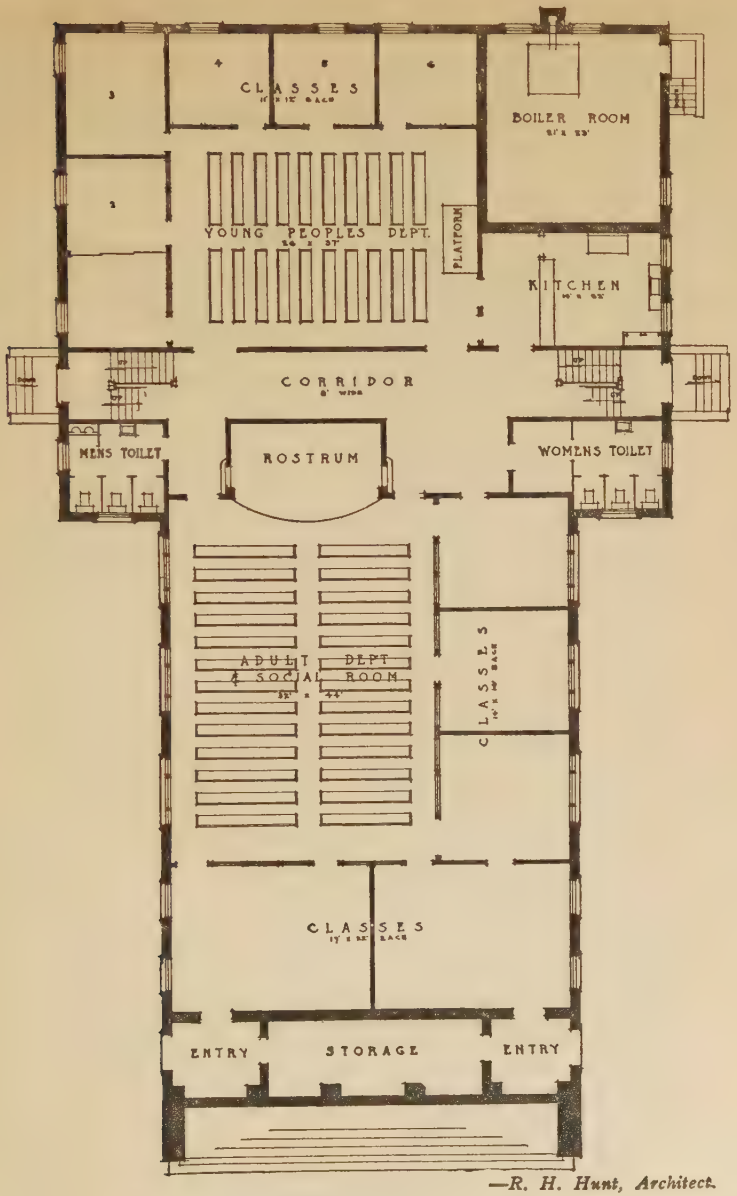
MAIN FLOOR PLAN.

Standard Building for Church and Sunday School of 600. For exterior perspective, see page 73.



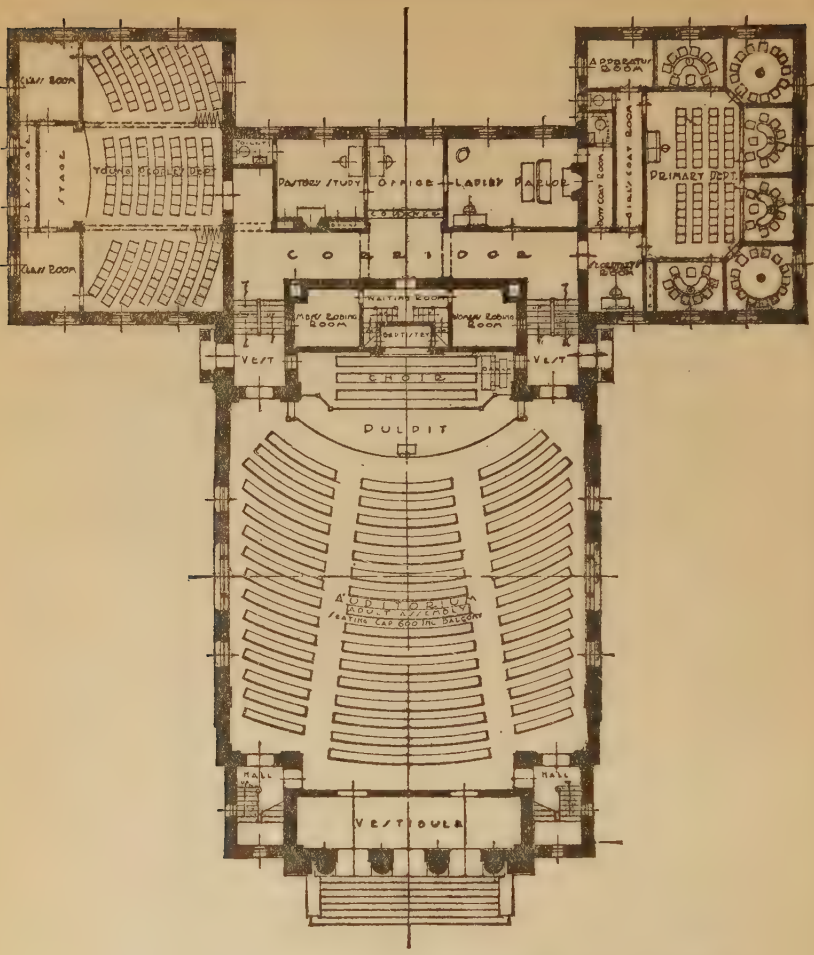
—*R. H. Hunt, Architect.*

BALCONY FLOOR PLAN.
Standard Building for Church and Sunday School of 600.



—*R. H. Hunt, Architect.*

GROUND FLOOR PLAN.
Standard Building for Church and Sunday School of 600.



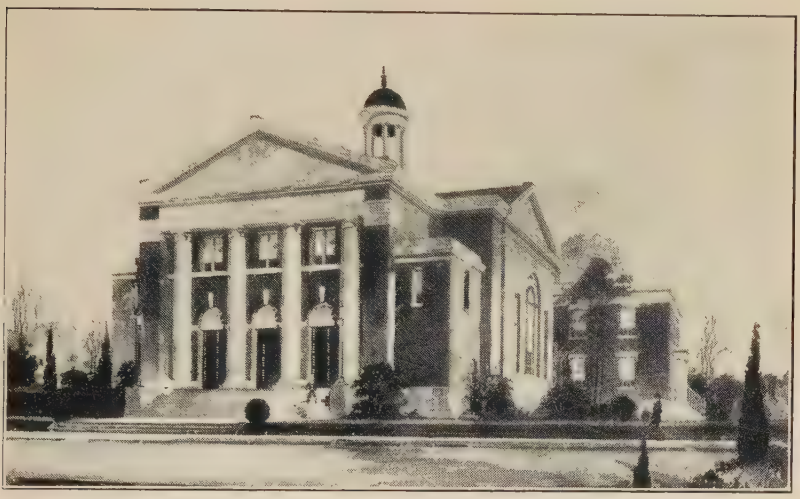
—Dougherty and Gardner, Architects.

MAIN FLOOR.
Typical Standard Building for Church and Sunday School Numbering 600.
For exterior perspective, see page 75.
Balcony and ground floors are shown on pages 77 and 78.

—*R. H. Hunt, Architect.*

STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 600.

The building measures, over all, 73 by 138 feet. The cubi cal content is 348,000 cubic feet At 20 cents per cubic foot, the cost would be $69,600. See floor plans, pages 69 71.



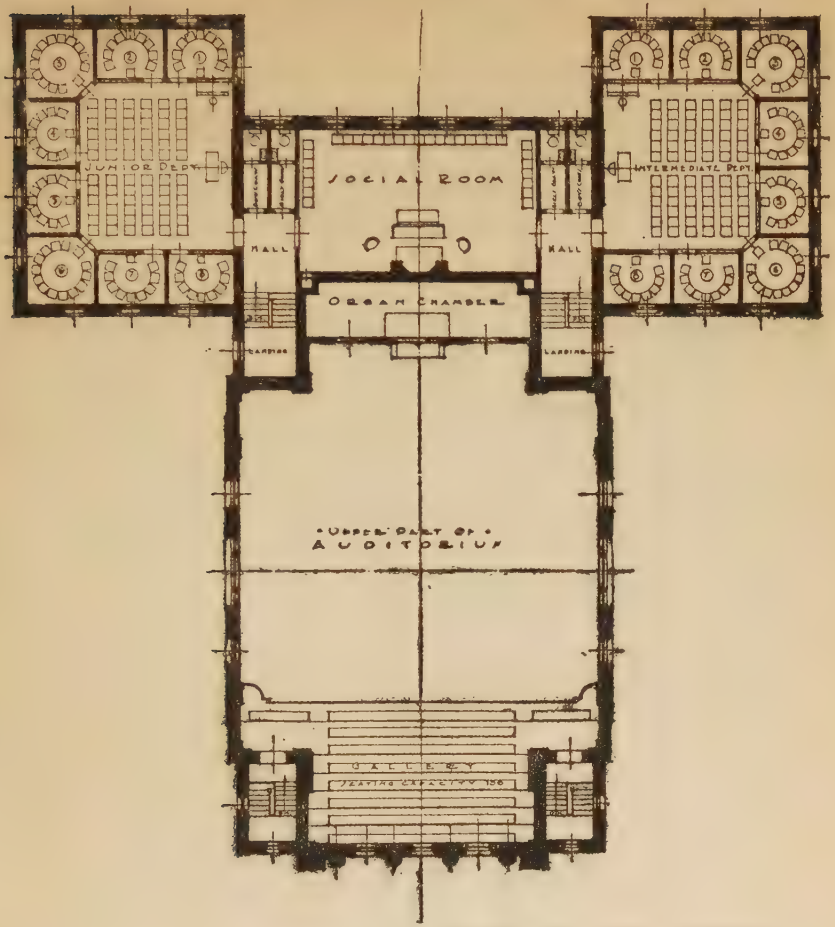
—Dougherty and Gardner, Architects.

STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 600.

Floor plans are shown on pages 72, 77 and 78.

A careful examination of the floor plans will reveal many thoughtful provisions. It will be observed that the ground floor is only a half flight of stairs beneath the auditorium floor, while the floor which shows the Primary Department and the Young People's Department is a half flight of stairs above the auditorium. When the lot slopes downward from the front, this arrangement permits a ground floor above the grade level.

The building measures, over all, 117 by 129 feet. The cubical content is 285,824 cubic feet. At 25 cents per cubic foot, the cost would be $71,456. In some sections the cost would be higher.

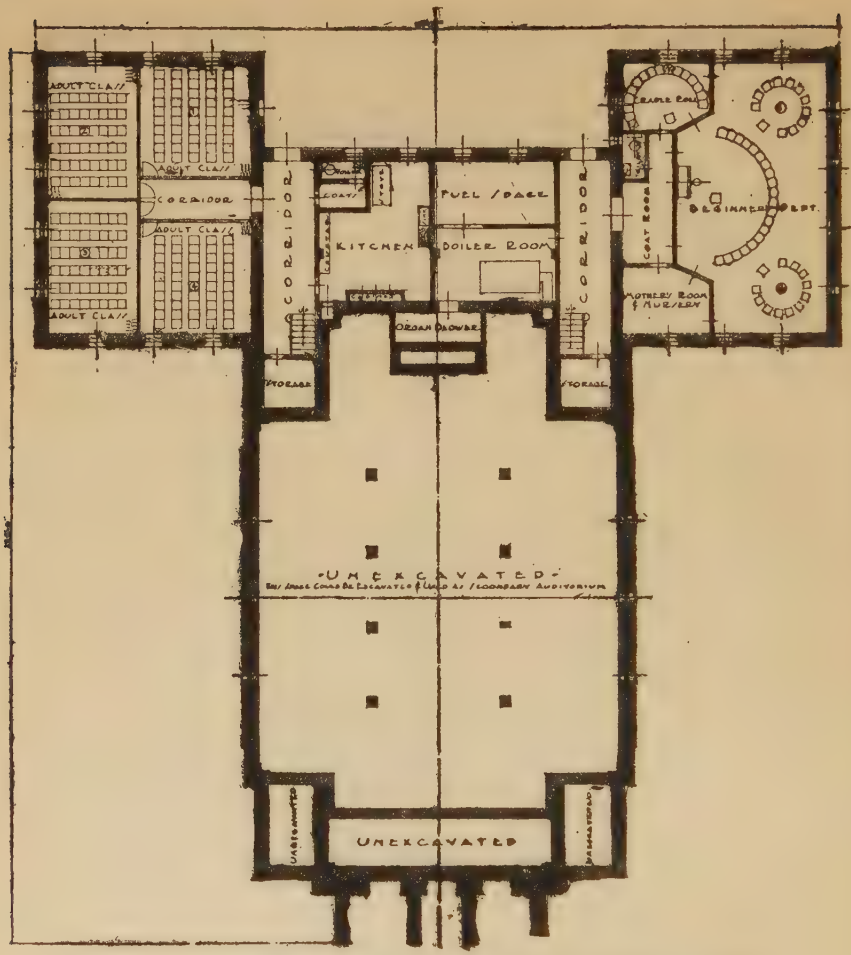


—*Dougherty and Gardner, Architects.*

BALCONY FLOOR.

Typical Standard Building for Church and Sunday School Numbering 600.

J. LIBRARY
B C K



—*Dougherty and Gardner, Architects.*

GROUND FLOOR.

Typical Standard Building for Church and Sunday School Numbering 690.

Chapter IX

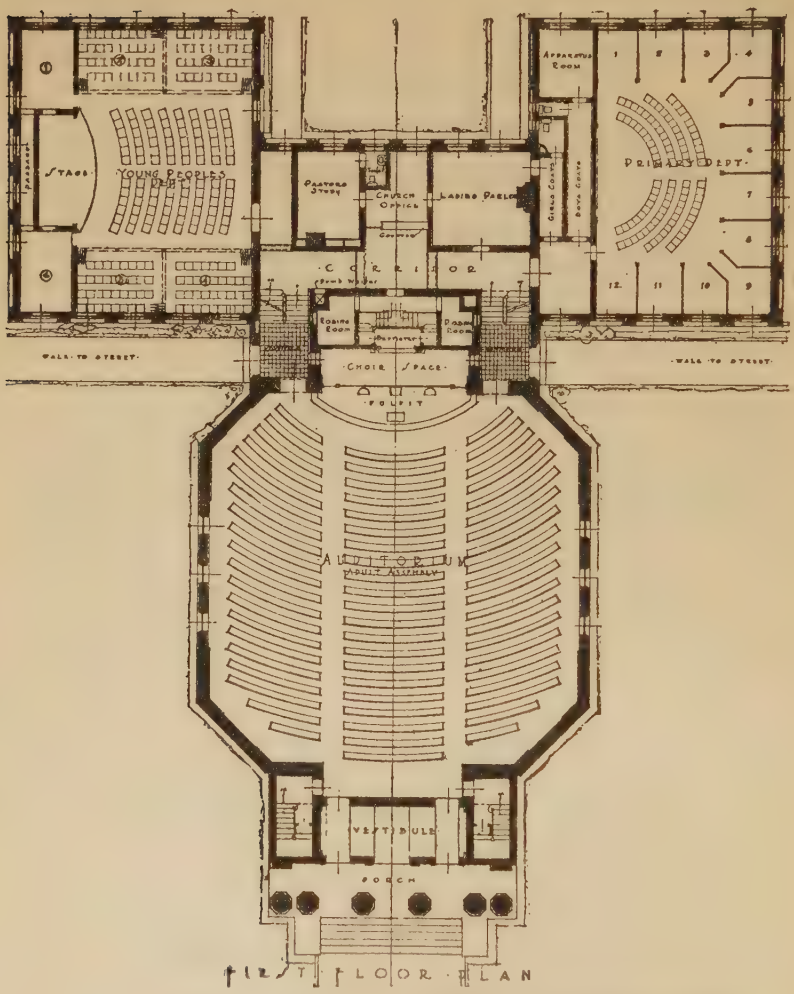
STANDARD BUILDINGS FOR CHURCH AND SUNDAY SCHOOL NUMBERING 900

In accordance with the schedule which we have already presented, the organization and provisions required for a Sunday school of 900 would be somewhat as follows:

	Pupils	Sq. Ft.		
Cradle Roll Class...	27	378		1 Class Room
Beginners.....	54	756	Assembly Room	
Primaries.....	81	1134	Assembly Room	9 Class Rooms
Juniors.....	108	1512	Assembly Room	12 Class Rooms
Intermediates.....	108	1512	Assembly Room	12 Class Rooms
Young People.....	216	3024	Assembly Room	6 Class Rooms
Adults.....	306	4284	Assembly Room	6 Class Rooms
	900	12600	6 Assembly Rooms	46 Class Rooms

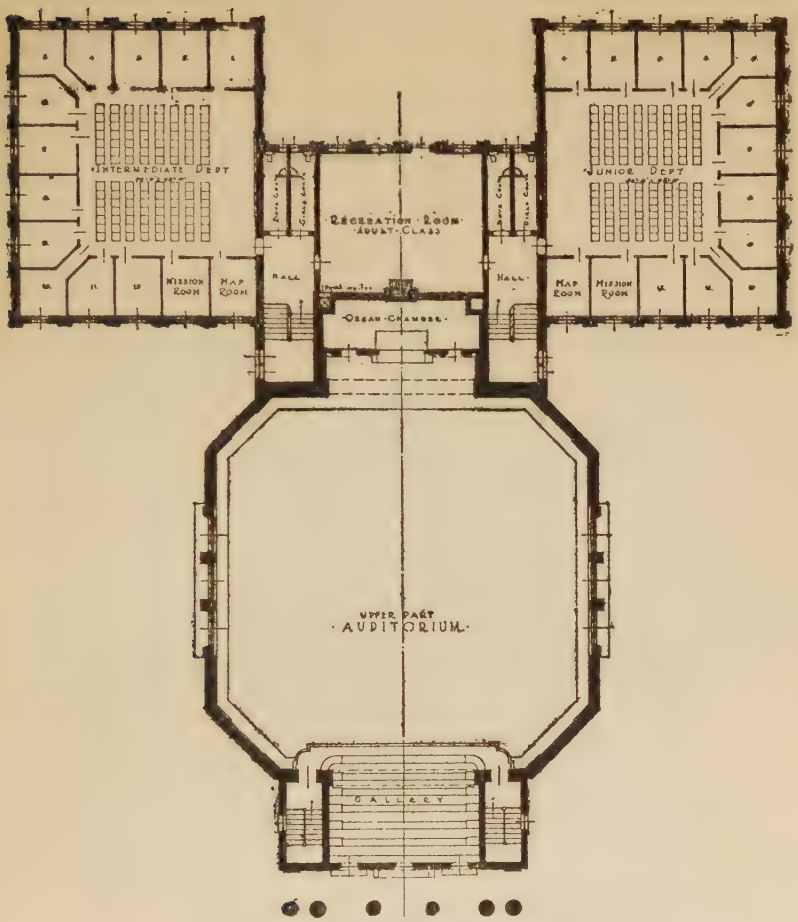
Applying the test of our standard, the building of the First Baptist Church, El Dorado, Ark., offered in the following pages, would be graded somewhat as follows:

	Per cent
1. Assembly rooms for all departments.....	10
2. Department Assembly rooms: (1) Sound-proof (2) Properly proportioned; (3) Suitable wall space; (4) Entrances at rear or side.....	9
3. Proper relative space for departments.....	8
4. Class rooms.....	10
5. Class rooms of proper size, etc.....	10
6. Allowance of 14 square feet per pupil.....	10
7. Intercommunication between the auditorium and the departments.....	10
8. Offices.....	10
9. Kitchen and social provisions.....	10
10. Toilets.....	10
	97



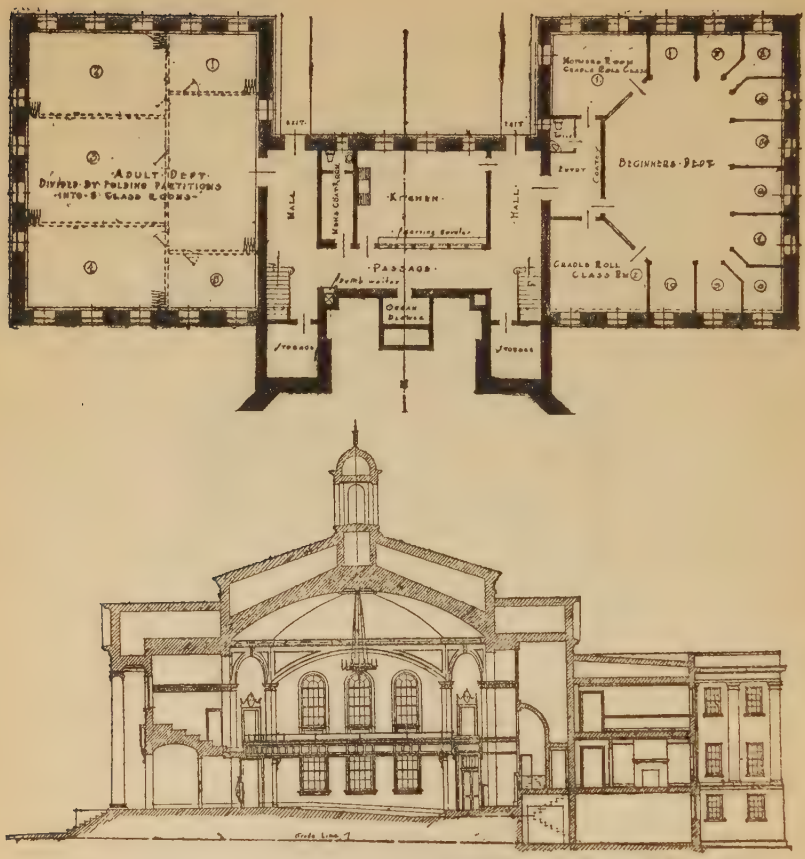
—*Dougherty and Gardner, Architects.*

The First Baptist Church, El Dorado, Arkansas.
For exterior perspective, see page 83.



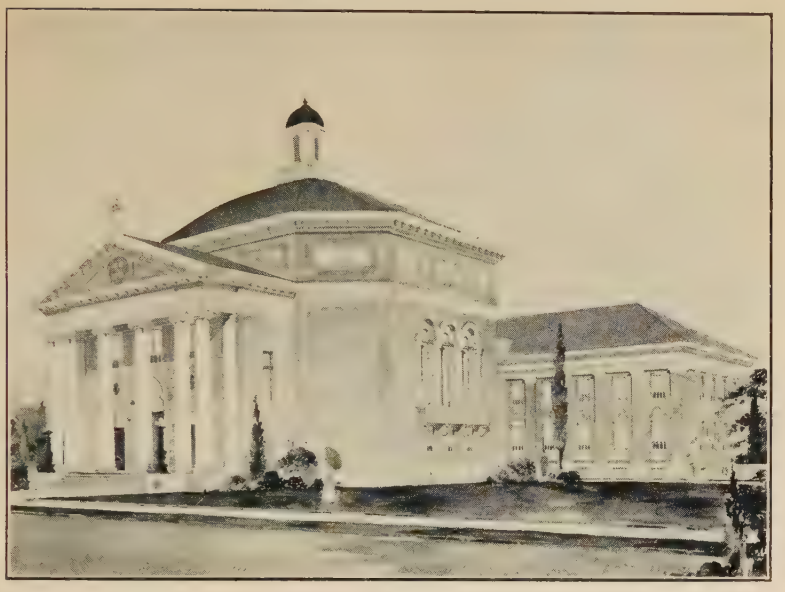
—*Dougherty and Gardner, Architects.*

SECOND FLOOR PLAN
The First Baptist Church, El Dorado, Arkansas.



—*Dougherty and Gardner, Architects.*

GROUND FLOOR AND LONGITUDINAL SECTION
The First Baptist Church, El Dorado, Arkansas.



—Dougherty and Gardner, Architects.

THE FIRST BAPTIST CHURCH, EL DORADO, ARK.

Completed April 1, 1923; cost $158,000. A Standard Building for Church and Sunday School Numbering 900.

The provision for departments in wings of the building assures good light and ventilation, and so separates the departments that programs of song and worship may be conducted without risk of one department interfering with another. See floor plans on pages 80-82.

—*R. H. Hunt, Architect.*

TYPICAL STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 900.

A similarity may be noted between the floor-plans of this building and the floor-plans of the First Baptist Church, Harlan, Ky. The elevation suggested above would apply equally well to the floor plans of the Harlan Church, and the elevation for that church would likewise apply to the floor-plans offered in the following pages.

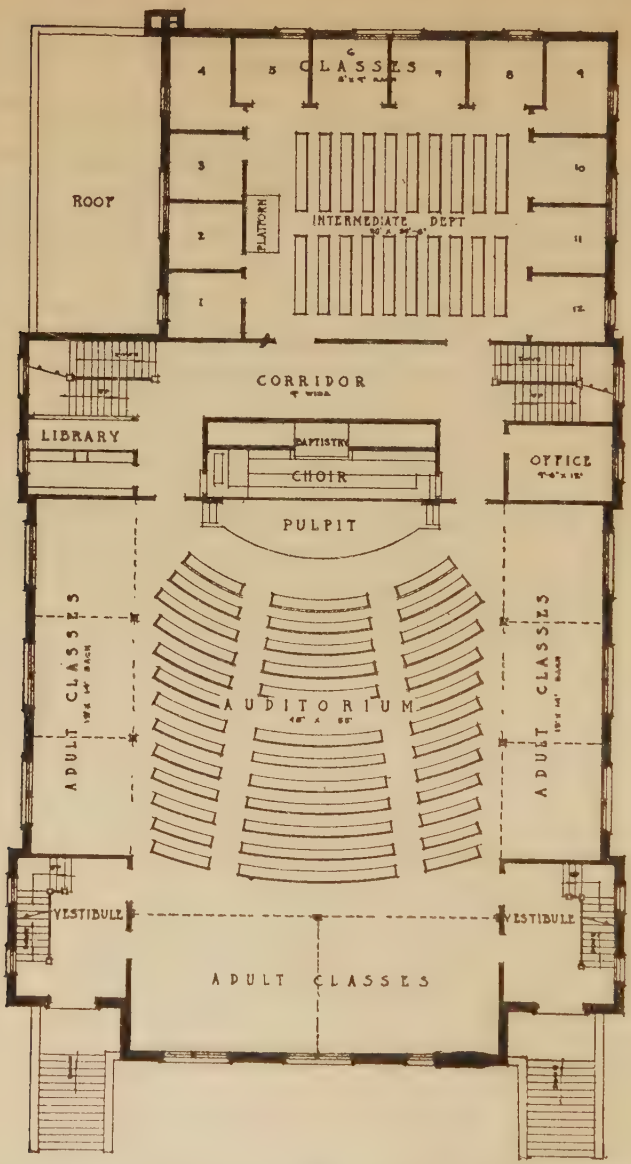
The building measures, over all, 75 by 130 feet. The cubical content is 424,600 cubic feet. At 16 cents per cubic foot, the cost would be $67,936. In many parts of the country the cost would be higher. See floor plans on pages 88-90.

A LESS EXPENSIVE BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 900.

The type of building which we have presented in the preceding pages implies an ample lot and involves a rather large expenditure. Many churches, in order to provide space required for the congregation and Sunday school, must practice careful economy, both as regards the lot and the design. The building which we offer in the following pages affords about the same total capacity in the auditorium and about the same capacity as regards the Sunday school and social life as the building in El Dorado, Ark., and yet it is estmiated that the cost would be about 50% less than the cost of that building. This design may, by necessary readjustment, lend itself to the housing of a church and Sunday school of 600 or 1,200, or even larger numbers.

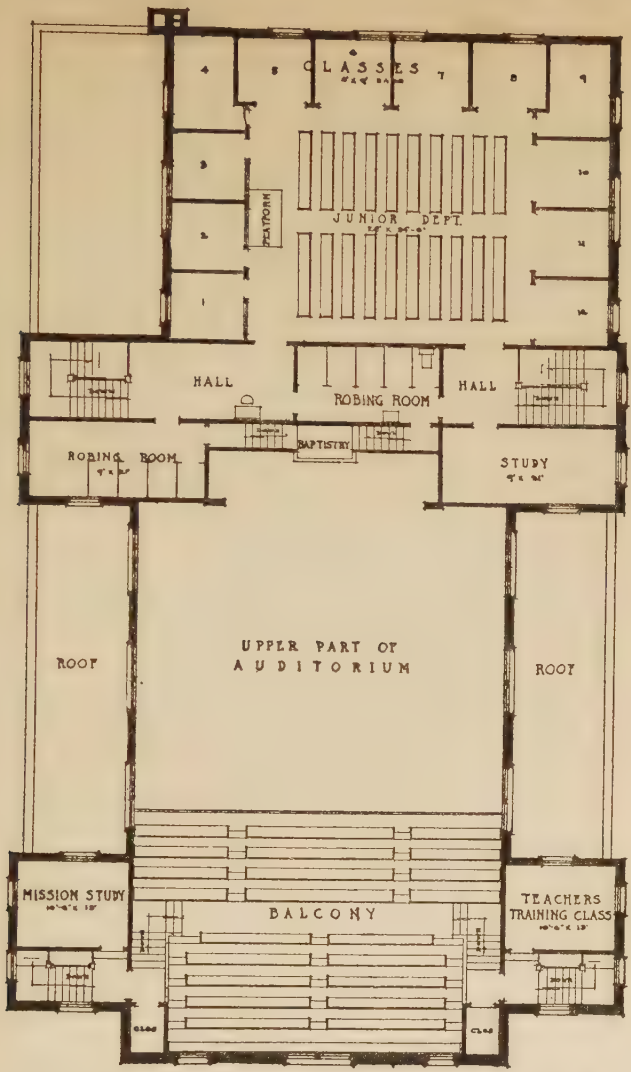
The building which we now propose would, as tested by our standard, be graded somewhat as follows:

	Per cent
1. Assembly rooms for all departments	10
2. Department assembly rooms: (1) Sound proof; (2) Properly proportioned; (3) Suitable wall space; (4) Entrances at rear or side	10
3. Proper relative space for departments	9
4. Class rooms	10
5. Class rooms of proper size, etc	9
6. Allowance of 14 square feet per pupil	10
7. Intercommunications between the auditorium and the departments	10
8. Offices	9
9. Kitchen and social provisions	10
10. Toilets	9
	96



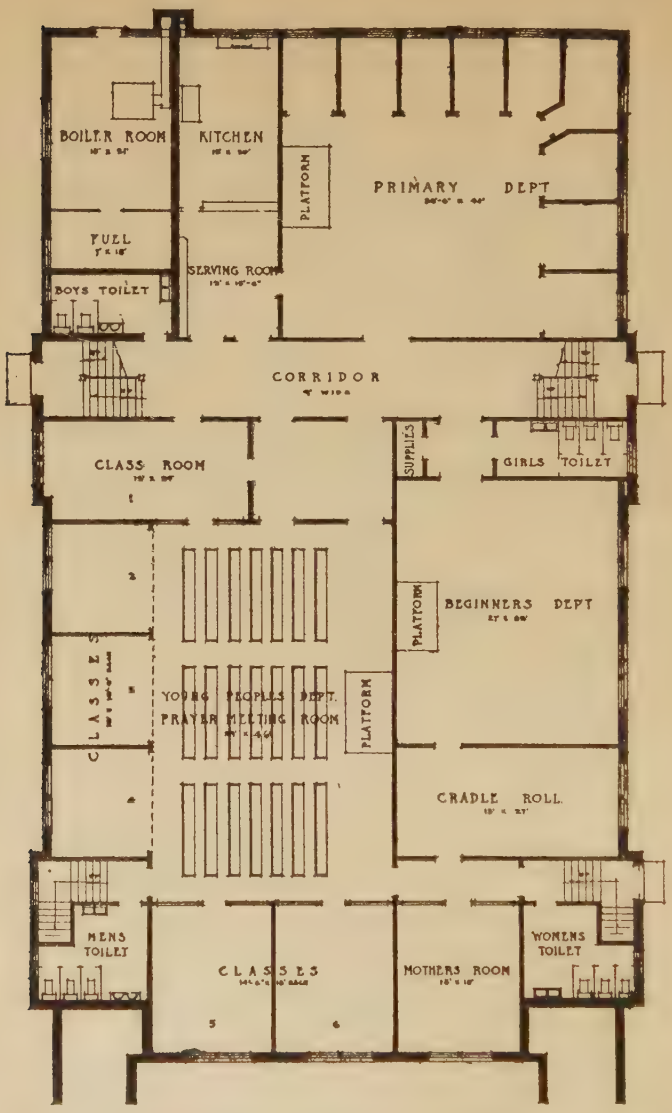
—*R. H. Hunt, Architect.*

MAIN FLOOR PLAN.
Typical Standard Building for Church and Sunday School Numbering 900.
See perspective, page 85.



—*R. H. Hunt, Architect.*

BALCONY FLOOR PLAN.
Typical Standard Building for Church and Sunday School Numbering 900.



—*R. H. Hunt, Architect.*

GROUND FLOOR PLAN.
Typical Standard Building for Church and Sunday School Numbering 900.

Chapter X

A STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 1,200

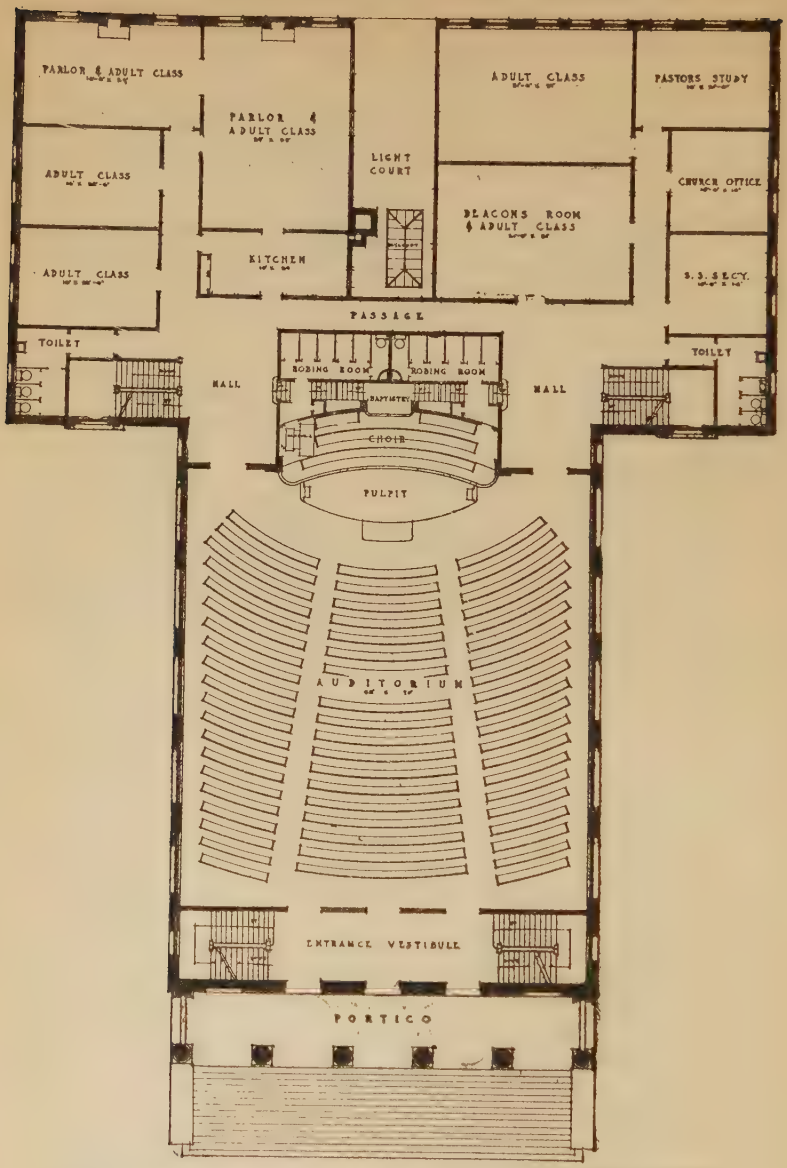
According to the schedule already proposed, the organization and equipment needed for a Sunday school of 1,200 would be as follows:

	Pupils	Sq. Ft.		
Cradle Roll Class....	36	504		1 Class Room
Beginners.....	72	1,008	Assembly Room	
Primaries.....	108	1,512	" "	12 Class Rooms
Juniors.....	144	2,016	" "	16 " "
Intermediates.....	144	2,016	" "	16 " "
Young People.....	288	4,032	" "	6 (or 8) "
Adults.....	408	5,712	" "	6 (or 8) "
	1,200	16,800	6 Assembly Rooms	57 (or 61)

The building which we present in the following pages offers seating capacity as follows: Auditorium, 715; Choir, 50; Balcony, 435; Total, 1,200.

By test of our score card, the building would grade as follows:

	Per cent
1. Assembly rooms for all departments.....	10
2. Department assembly rooms, (1) Sound proof; (2) Properly proportioned; (3) Suitable wall space; (4) Entrance at side or rear.....	9
3. Proper relative space for departments.....	10
4. Class rooms.....	10
5. Class rooms of proper size, etc.....	10
6. Allowance of 14 square feet per pupil.....	10
7. Intercommunication between the auditorium and the departments.....	10
8. Offices.....	10
9. Kitchen and social provisions.....	10
10. Toilets.....	10
	99



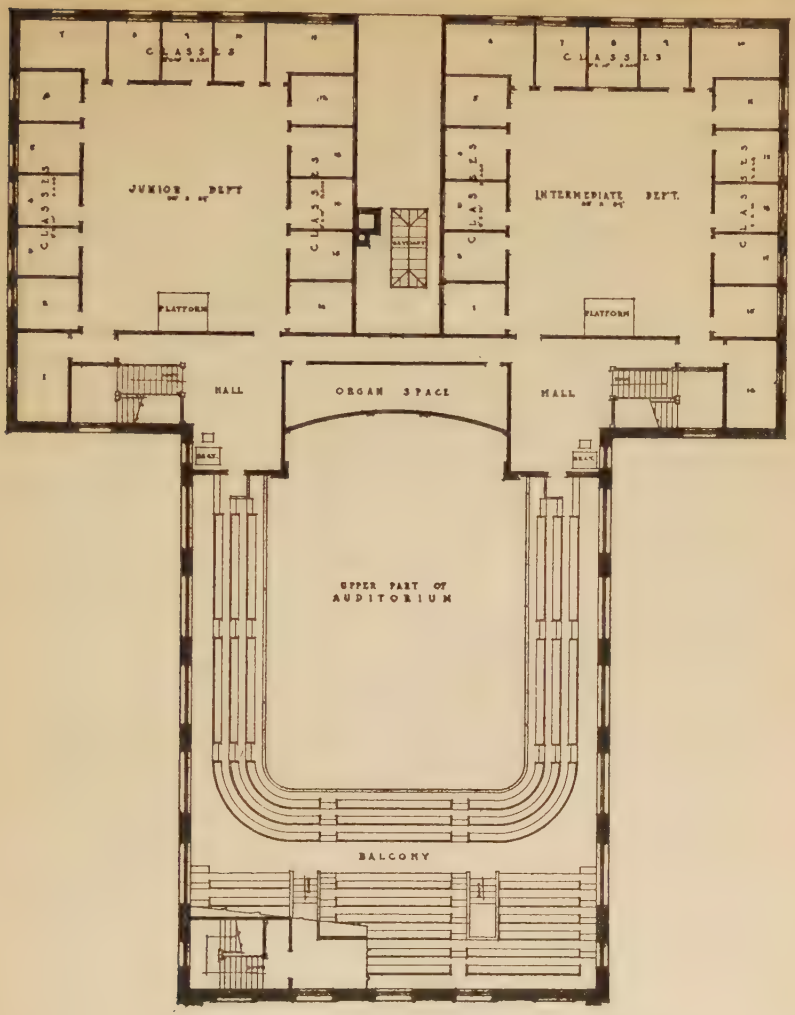
—*R. H. Hunt, Architect.*

MAIN FLOOR PLAN.
Standard Building for Church and Sunday School Numbering 1,200.
See perspective, page 93.

—*R. H. Hunt, Architect.*

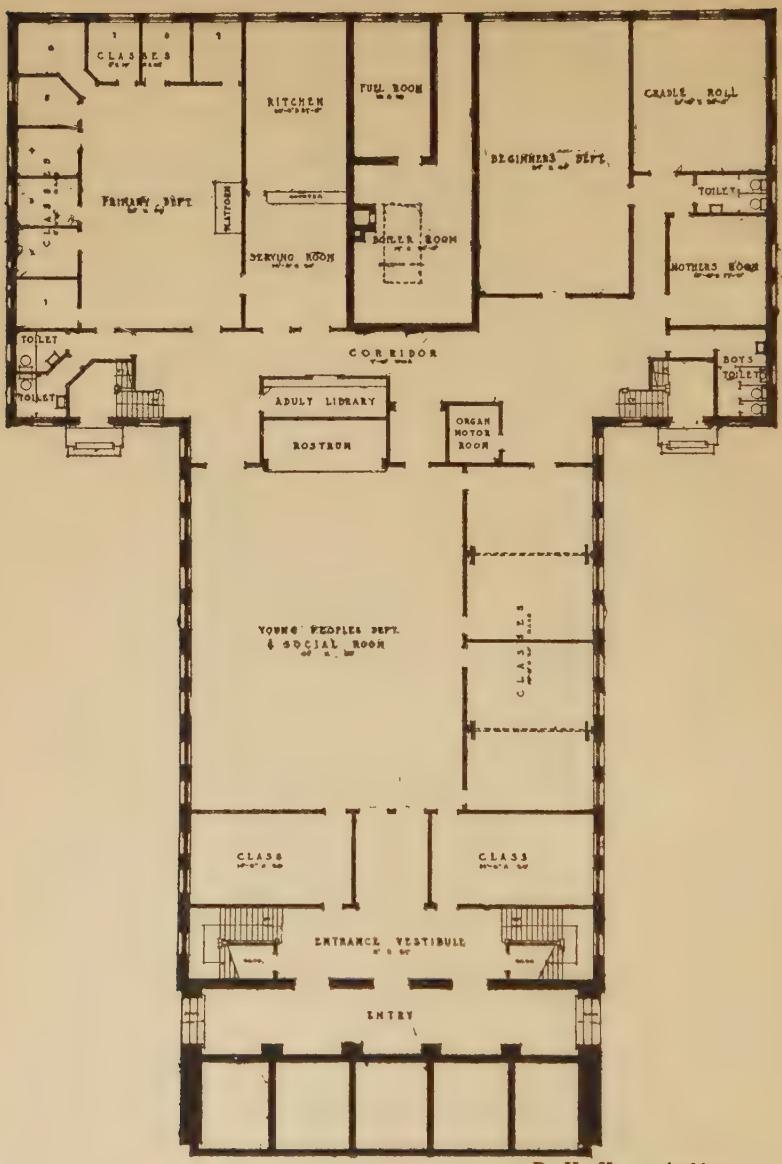
STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 1,200.

The building measures, over all, 124 by 183 feet. The cubical content is 799,136 cubic feet. At 18 cents per cubic foot, the cost would the $143,844. In many parts of the country the cost would be higher. See floor plans on pages 92, 95 and 96.



—*R. H. Hunt, Architect.*

BALCONY FLOOR PLAN.
Standard Building for Church and Sunday School Numbering 1,200.



—R. H. Hunt, Architects.

GROUND FLOOR PLAN.
Standard Building for Church and Sunday School Numbering 1,200.

Chapter XI

STANDARD BUILDINGS FOR CHURCH AND SUNDAY SCHOOL NUMBERING 1,500

In accordance with suggestions previously made, a Sunday school of 1,500 would call for organization and equipment somewhat as follows:

	Pupils	Sq. Ft.			
Cradle Roll Class	45	630			1 Class Room
Beginners	90	1,260	Assembly Room		
Primaries	135	1,890	"	"	15 Class Rooms
Juniors	180	2,520	"	"	20 " "
Intermediates	180	2,520	"	"	20 " "
Young People	360	5,040	"	"	8 (?) " "
Adults	510	7,140	"	"	8 (?) " "
	1,500	21,000	6 Assembly Rooms		72 Class Rooms

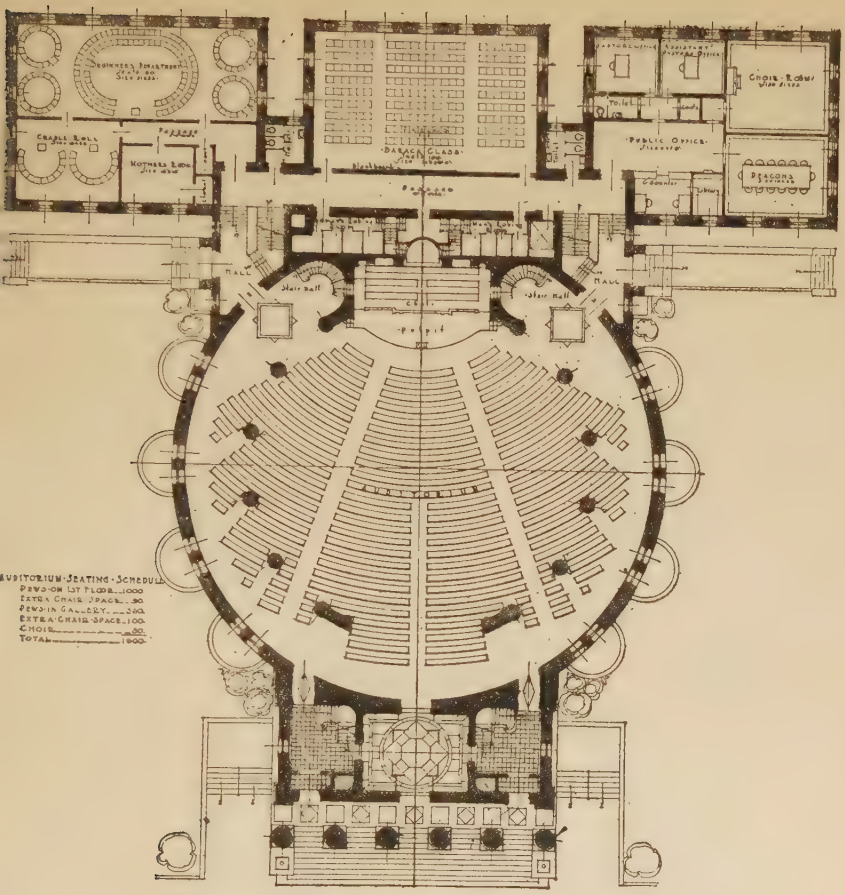
We may here point out some special features in the proposed First Baptist Church, Winston-Salem, N. C., floor plans of which are presented in the following pages; the First Baptist Church, Knoxville, Tenn., is of similar design and most of the features which we mention appear also in that building.

The auditorium.—(1) The open passage around the auditorium and around the balcony wall is a pleasing feature, favoring both ventilation and circulation. (2) The stairs leading from the balcony near the platform are designed with thoughtful care and will serve well in special evangelistic services. (3) The arrangement of the pulpit, choir and baptistry is especially commendable. (4) The circular auditorium draws the congregation

closely about the rostrum, thus favoring both the preacher and the singers.

The secondary auditorium.—Under the auditorium, on the ground floor, is a spacious secondary auditorium with a seating capacity of 965. This great room with its four entrances and its architectural dignity is not least among the useful and striking features of the building.

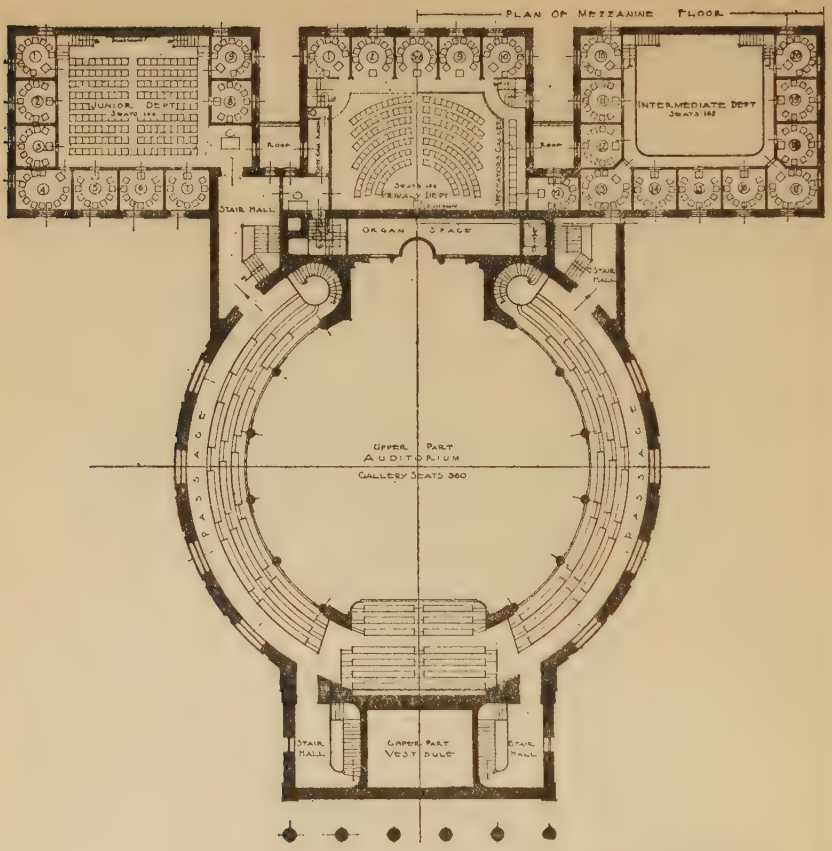
Provision for social life.—The kitchen and serving room have their own entrance direct from the outside. The large Adult Class Rooms adjacent and the secondary auditorium, as well as the Baraca Room on the floor above, are available as parlors and banquet rooms, so that a half dozen social functions can be conducted simultaneously without disturbing one another.



—Dougherty and Gardner, Architects.

PRELIMINARY SKETCH FOR MAIN FLOOR.
The First Baptist Church, Winston-Salem, N. C.

Administrative offices are grouped in one wing and are easily accessible to the public. The large room marked "Parlor and Baraca" seats 198 and will serve as a chapel, meeting many important demands in church life. The Mothers' Room and Cradle Roll Room will be useful as a nursery during preaching services.

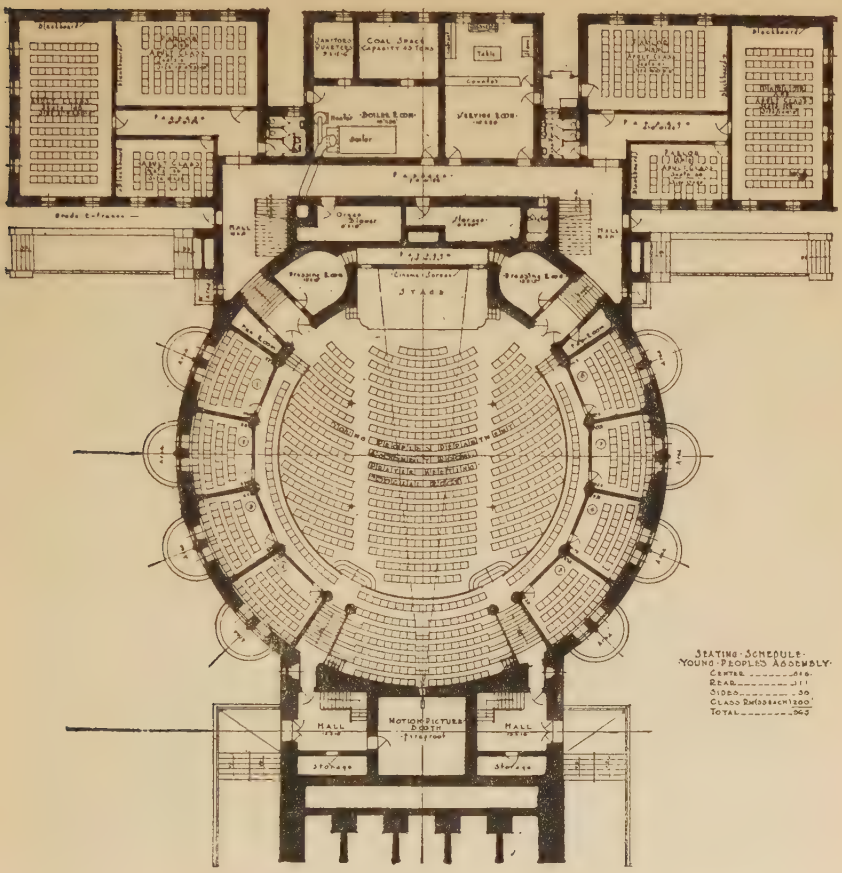


—Dougherty and Gardner, Architects.

PRELIMINARY SKETCH FOR BALCONY FLOOR.

The First Baptist Church, Winston-Salem, N. C.

In the upper section of the above drawing, the left wing shows the main floor which is duplicated on the right, while the right wing shows the mezzanine floor which also is duplicated on the left. Thus we have nine Junior and nine Intermediate Class Rooms below and eleven Junior and eleven Intermediate Class Rooms on the mezzanine floor, making a total of twenty class rooms for each of these departments. There are six Primary Class Rooms below and six on the mezzanine floor above, making a total of twelve class rooms for the Primaries.



—Dougherty and Gardner, Architects.

PRELIMINARY SKETCH FOR GROUND FLOOR.

The First Baptist Church, Winston-Salem, N. C.

The Young People's Assembly Room, designed also for Socials, Banquets and other general purposes, is carefully treated architecturally with a view to its general impressiveness. The main central portion has high ceiling and is easily accessible from the front and side streets. The large class rooms are to be used also for social purposes, while an elevator almost opposite the door of the serving room leads to the upper floors and to the roof garden, thus making it possible to serve on any floor of the building.

A Less Expensive Building.—Many churches which can not undertake to erect such a building as we have presented in the preceding pages, may yet require a similar schedule of provisions. The First Baptist Church, Harlan, Ky., offers approximately the same Sunday-school capacity throughout and yet the contract-cost of this building was only $121,000.

The capacity of the auditorium is as follows:

Main auditorium	440
Eight rooms adjoining	338
Choir platform	42
Balcony	282
Total capacity of auditorium	1,102
Total capacity with alternative balcony.	1,420

The Sunday-school capacity is as follows:

Mothers' room	41
Cradle roll class room	36
Beginners	75
Primaries	150
Juniors	200
Intermediates	200
Young people	360
Adults (including Deacons' room and rooms on balcony floor)	438
Total Sunday-school capacity	1,500

This plan, by necessary readjustments, could be made a standard plan for a Sunday school of 900 or 1,200.

—*Dougherty and Gardner, Architects.*

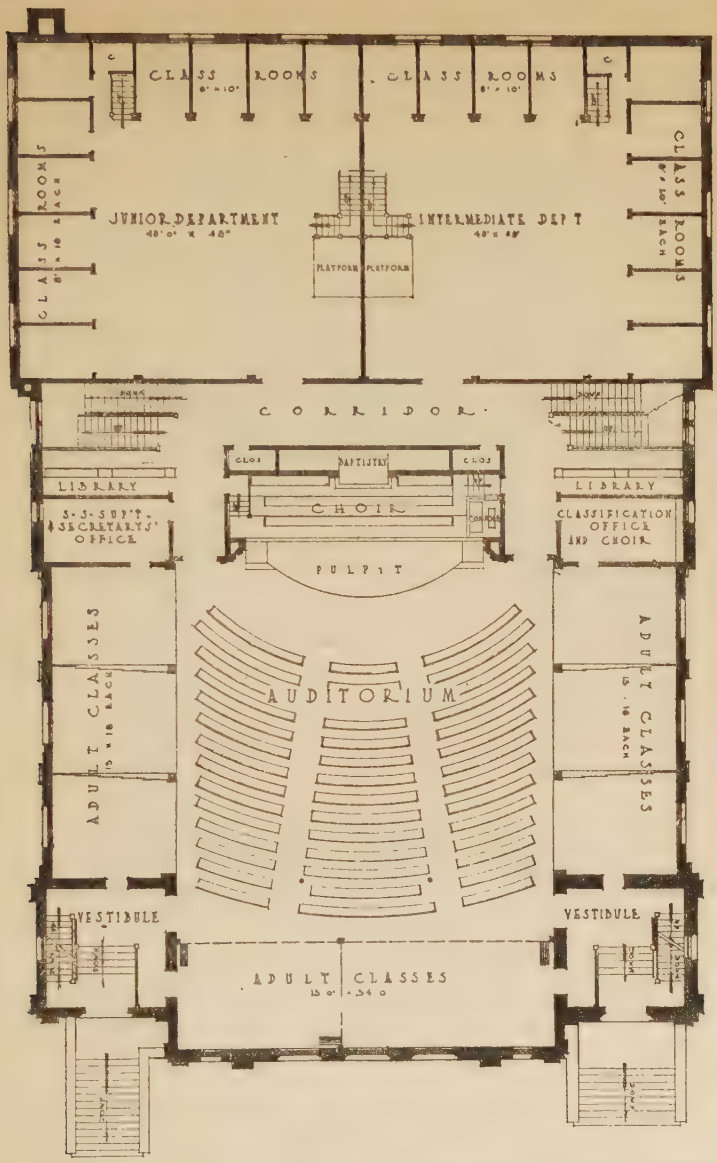
PRELIMINARY SKETCH FOR THE FIRST BAPTIST CHURCH, WINSTON-SALEM, N. C.

Estimated cost $300,000. See floor plans on pages 99-101.

—*R. H. Hunt, Architect.*

FIRST BAPTIST CHURCH, HARLAN, KY.

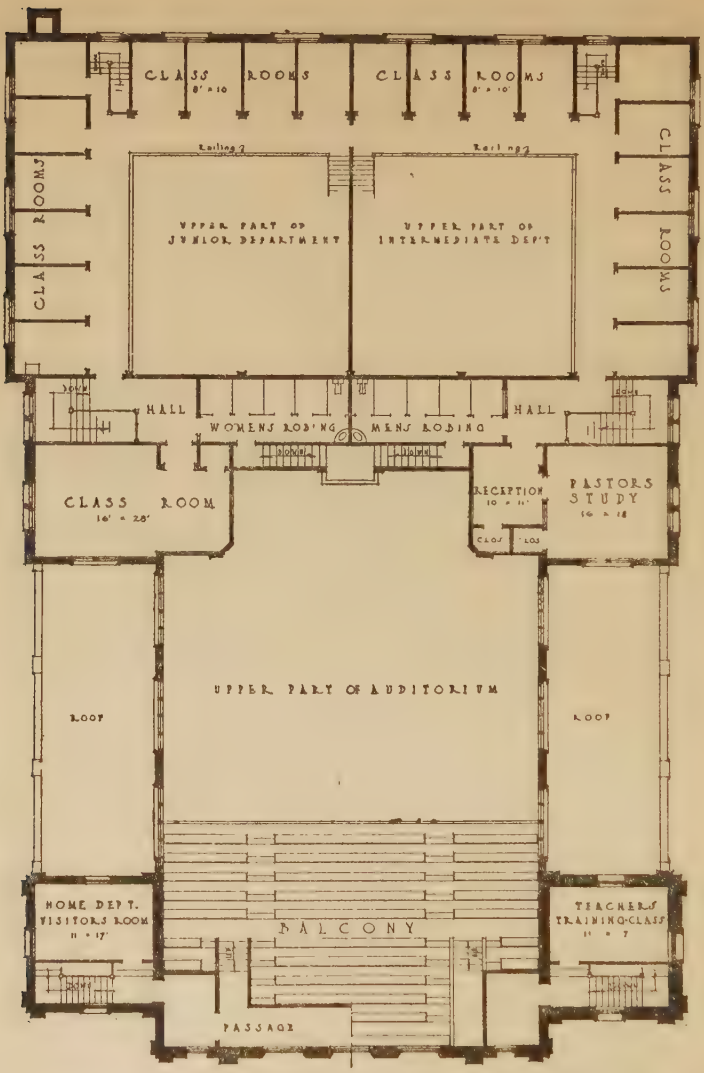
The building measures, over all, 100 by 162 feet. The cubical content is 810,000 cubic feet. See floor plans on pages 107-110.



—*R. H. Hunt, Architect.*

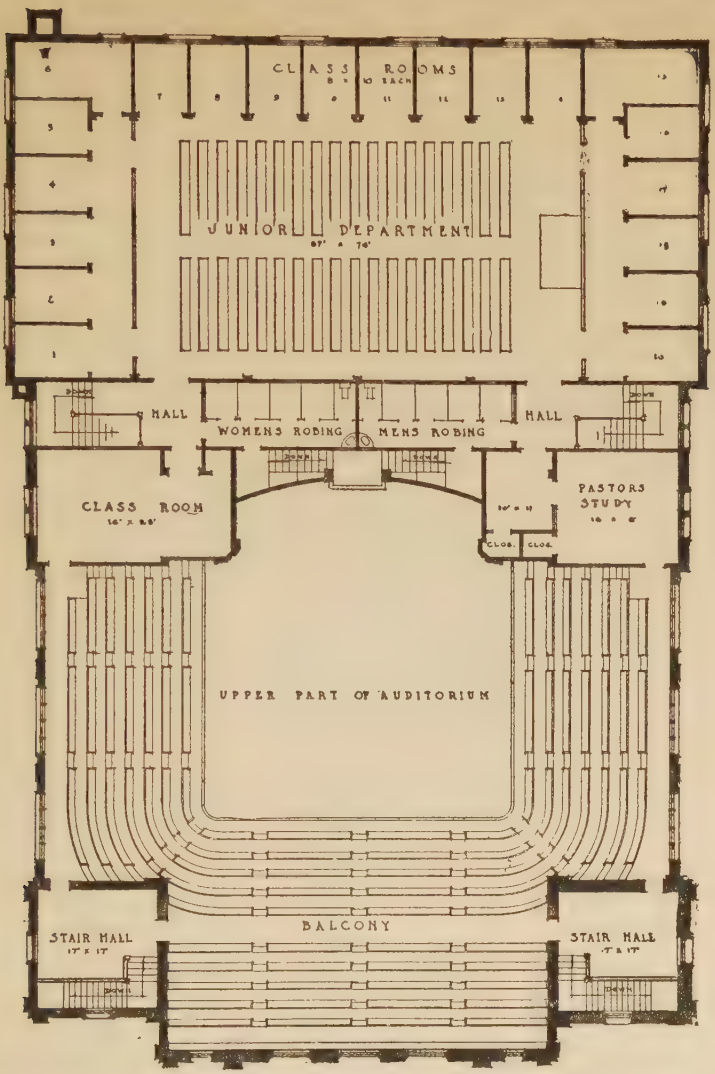
MAIN FLOOR PLAN
First Baptist Church, Harlan, Ky.
For perspective, see page 105.

LIBRARY



—R. H. Hunt, Architect.

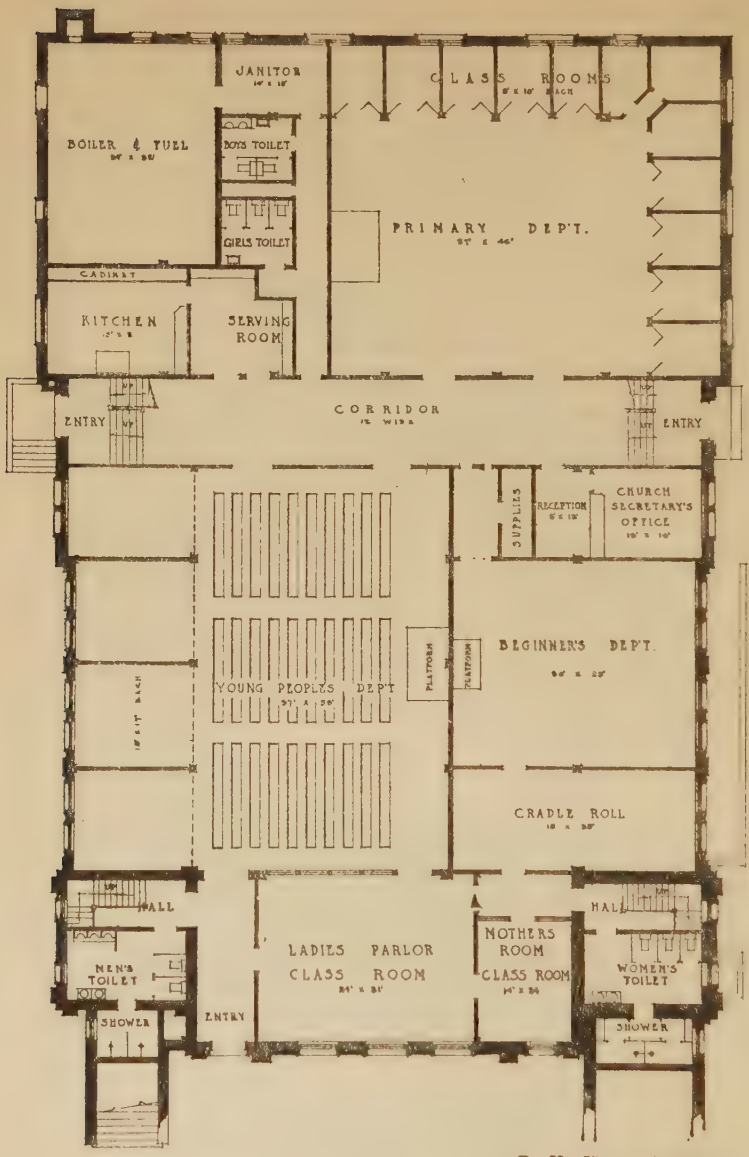
BALCONY FLOOR PLAN.
First Baptist Church, Harlan, Ky.



—*R. H. Hunt, Architect.*

ALTERNATIVE BALCONY FLOOR PLAN.
First Baptist Church, Harlan, Ky.

The space underneath the Junior Department on the main floor would in this case be given to the Intermediate Department.



—*R. H. Hunt, Architect.*

GROUND FLOOR PLAN.
First Baptist Church, Harlan, Ky.

Chapter XII

A STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 2,000

We present in this chapter a great building which, because it is designed for a church in a University center, must make unusually large provision for Young People and Adults. It is the proposed University Methodist Church South, Norman, Oklahoma, this being the location of the Oklahoma State University. The capacity of the auditorium is 1,474.

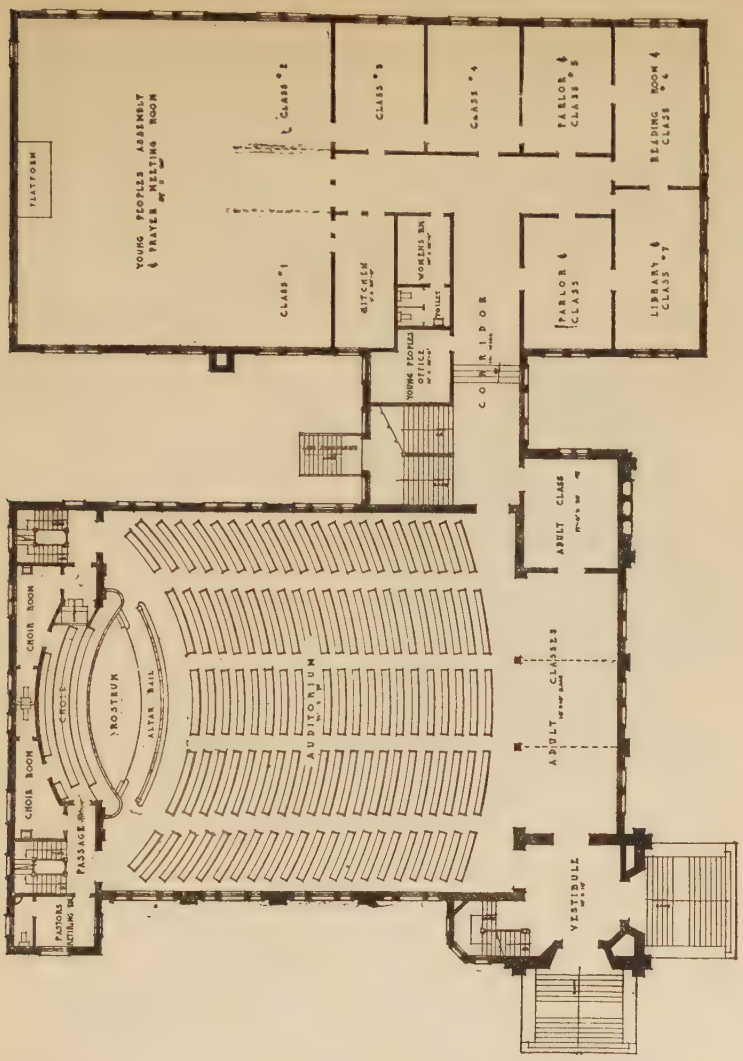
The building offers provision for departments in accordance with the alternative plan of organization which is mentioned on pages 43 and 44. The schedule of space offered in the building is as follows:

	Pupils		
Cradle Roll Class	40		
Beginners	80	Assembly Rooms	1 Class Room
Primaries	120	" "	12 Class Rooms
Juniors	120	" "	12 " "
Intermediates	120	" "	12 " "
Seniors	120	" "	6 " "
Young People	500	" "	8 " "
Adults	900	" "	16 " "
	2,000	7 Assembly Rooms	67 Class Rooms

The seating capacity of the auditorium is as follows: Main Floor, 750; Choir, 40; Class Rooms, 108; Balcony, 576; Total, 1,474.

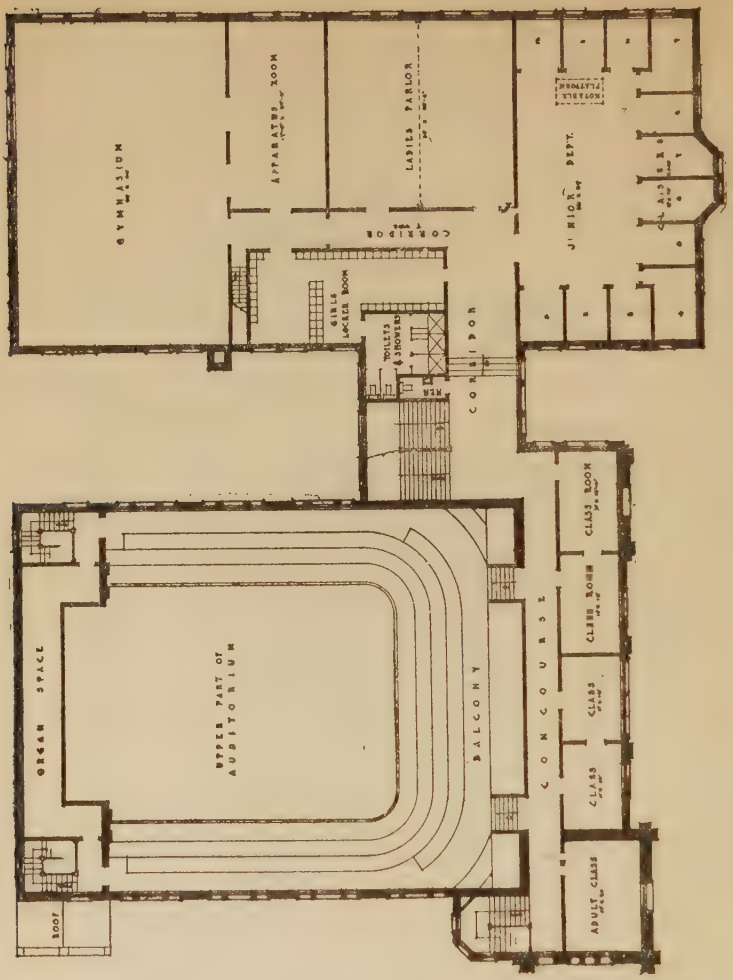
Its grade, tested by our standard, is as follows:

	Per cent
1. Assembly rooms for all departments	10
2. Department-assembly rooms: (1) Sound-proof; (2) Properly proportioned; (3) Suitable wall space; (4) Entrance at side or rear	9
3. Proper relative space for departments	10
4. Class rooms above the Primary Department	10
5. Class rooms of proper size	9
6. Allowance of 14 square feet per pupil	10
7. Intercommunication between the auditorium and the departments	9
8. Offices	9
9. Kitchen and social provisions	10
10. Toilets	10
	96



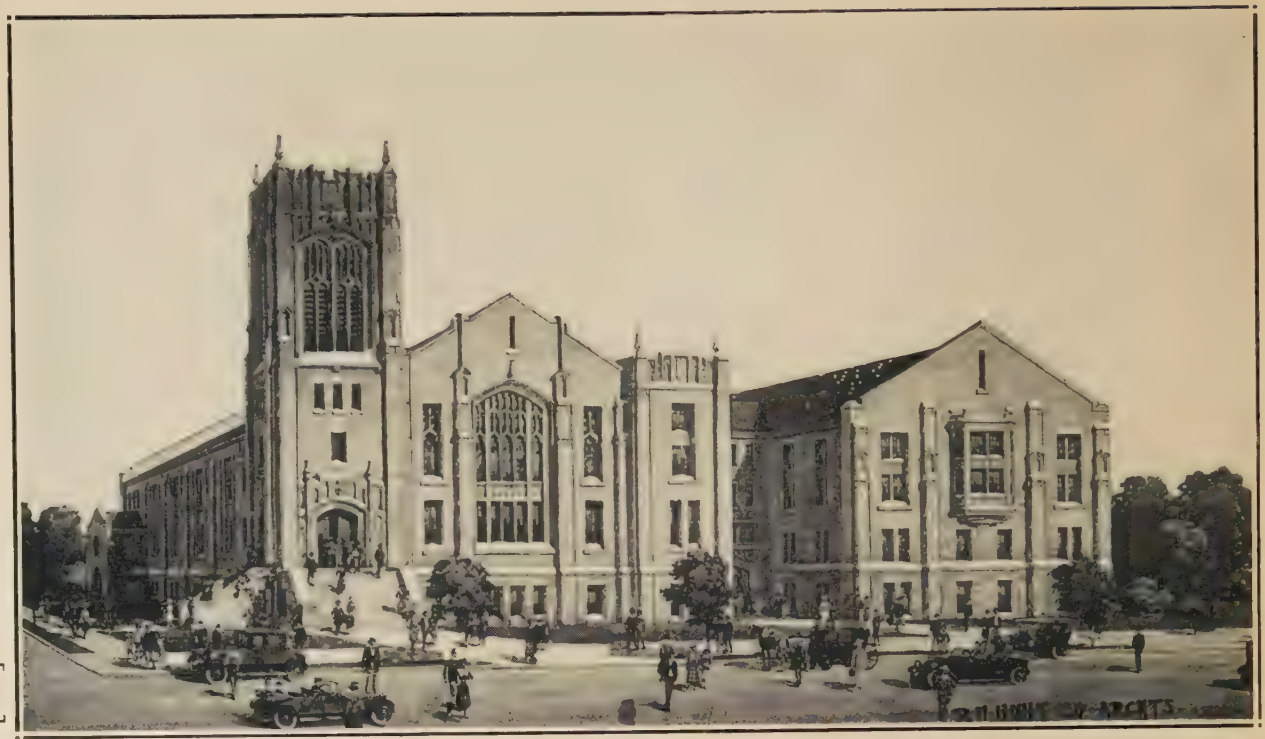
—*R. H. Hunt, Architect.*

MAIN FLOOR PLAN.
Proposed University Methodist Episcopal Church, South, Norman, Okla.
See perspective, page 115.



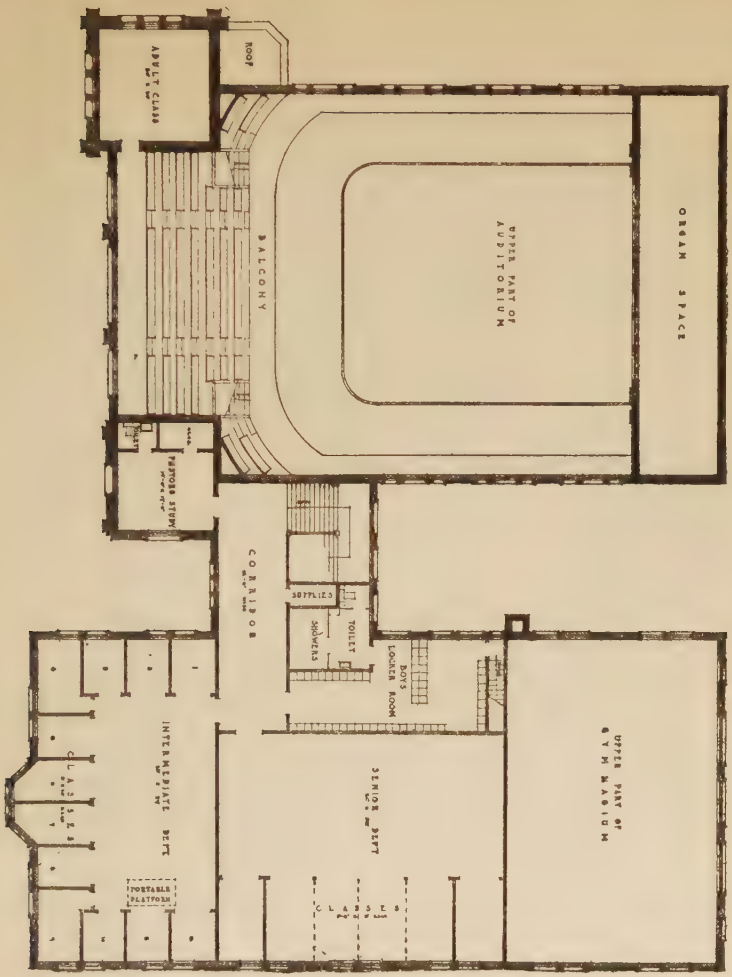
—*R. H. Hunt, Architect.*

MEZZANINE BALCONY FLOOR.
Proposed University Methodist Episcopal Church, South, Norman, Okla.



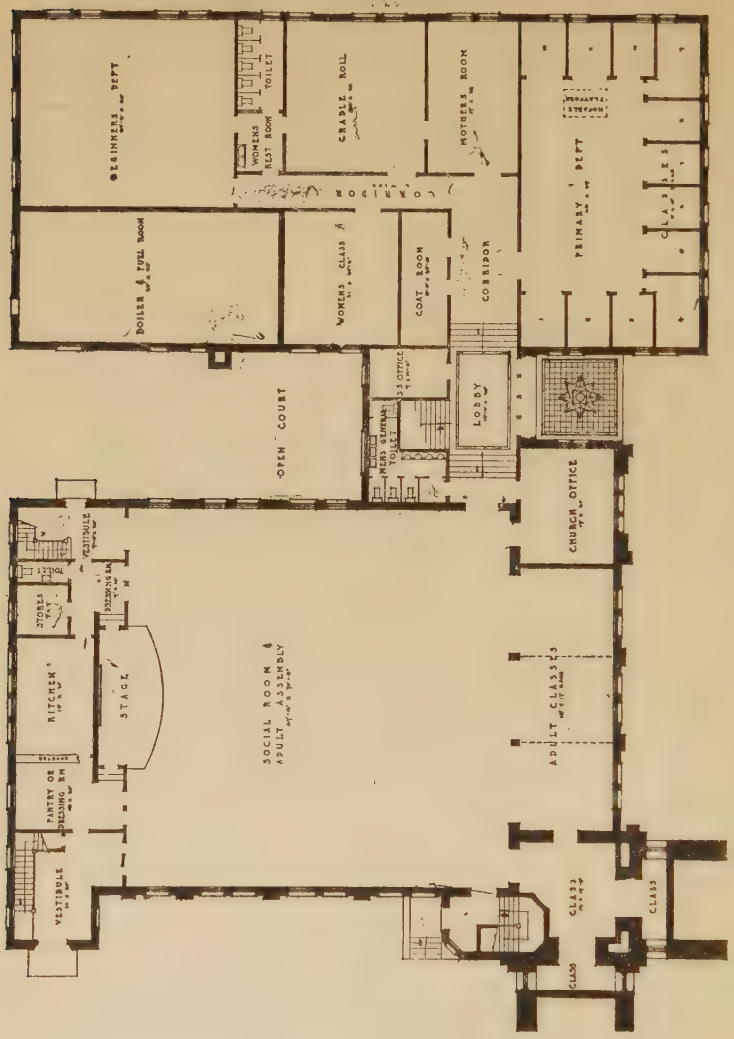
—*R. H. Hunt, Architect.*

PROPOSED UNIVERSITY METHODIST EPISCOPAL CHURCH, SOUTH, NORMAN, OKLA. A STANDARD BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 2,000. See floor plans on pages 113, 114, 117 and 118.



—*R. H. Hunt, Architect.*

BALCONY FLOOR PLAN.
Proposed University Methodist Episcopal Church, South, Norman, Okla.



—*R. H. Hunt, Architect.*

GROUND FLOOR PLAN.
Proposed University Methodist Episcopal Church, South, Norman, Okla.

Chapter XIII

BUILDINGS FOR CHURCH AND SUNDAY SCHOOL NUMBERING 100 TO 200

We offer as a suggestion the following schedule for a Sunday school of 150.

	Pupils	Sq. Ft.	
Beginners Inc. C. R. C.	14	196	Assembly Room
Primaries	14	196	Assembly Room
Juniors	18	252	2 Class Rooms
Intermediates	18	252	2 Class Rooms
Young People	36	504	2 Class Rooms
Adults	50	700	2 Class Rooms
	150	2100	10 Rooms

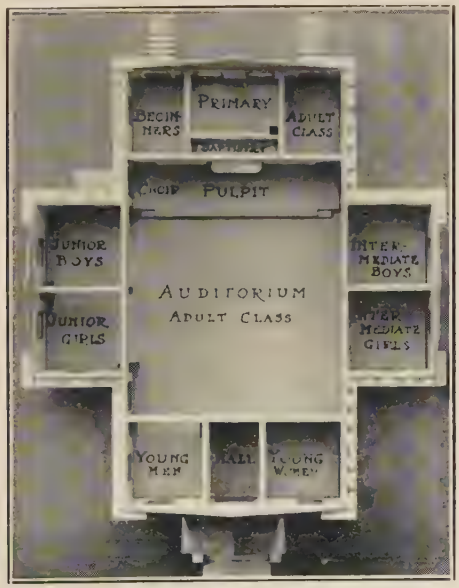
It is, of course, desirable that the auditorium shall be complete in itself and separate from Sunday-school evidences. This arrangement is not always practicable, especially in the case of small buildings, such as we consider in this chapter. It will be observed that in practically all of the buildings which are offered in this chapter and the chapter which follows, certain space arranged for class use is available also for enlargement of the auditorium. The ideals which we have presented and illustrated in previous chapters can hardly be fully realized in smaller buildings, especially where it seems necessary to practice economy.

When we consider that more than half of the church buildings throughout our country are now, and must

always be, of the smaller type, the importance of the small building becomes apparent. Increasing attention should be given to the planning of such buildings. The floor-plan arrangement must be carefully studied and the beauty and dignity of the design must come in for special consideration. Dr. Vogt, whom we have had frequent occasion to quote, says in this connection: "It is no more costly to build a very small church beautifully than it is to build an ugly one. On the contrary, my own observation leads me to think that much of the unnecessary expense in many small churches has detracted from the beauty of the buildings rather than added to it. Far too many small churches are not sufficiently plain, direct, and simple. Success in this matter is not a question of materials nor of size, but of taste and artistry."

—W. J. H. Wallace, Architect.

This small church building offers fair relative provisions for all departments in a Sunday school numbering 100 to 150. Folding partitions separate six class rooms from the auditorium. When these partitions are removed, the capacity of the auditorium is doubled. The building is 54x60 feet over-all. The auditorium proper measures 29x36 feet and offers a seating capacity of 140; with adjoining rooms, 280.



Showing the building viewed from above with the roof removed.

—*Thos. W. Gardner, Architect.*

THE DONELSON (TENN.) BAPTIST CHURCH.

An attractive Old English design; cost (1917) in native stone, with basement furnace, $4,000. Main auditorium seats 155; total seating capacity 240. Eight Sunday school rooms. The building measures, over-all, 52 by 53 feet. See floor plan on page 131.

—*R. H. Hunt, Architect.*

TYPICAL DEPARTMENTAL BUILDING FOR CHURCH AND SUNDAY SCHOOL NUMBERING 100 TO 200.

Above and on the next page we present a design which, in its general lines, has met with much favor. The auditorium seats 165, choir, 20, six adjoining class rooms, 160; total, 345.

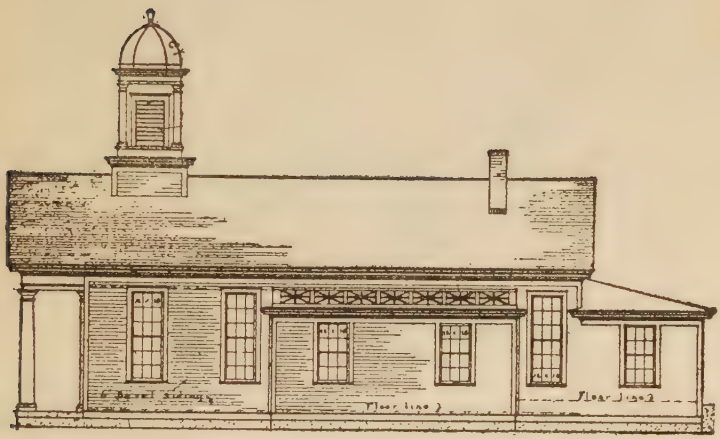
The building measures over all 58 by 90 feet. The cubical content is 110,712 cubic feet. Cost in frame construction at 12 cents per cubic foot, $13,284; cost in brick-veneer construction at 16 cents per cubic foot, $17,713. See floor plan on page 133.

—C. W. Bulger and Son, Architects.

ATTRACTIVE AND CONVENIENT SMALL CHURCH DESIGN.
For floor plan see page 132.

—*W. J. H. Wallace, Architect.*

Front Elevation.

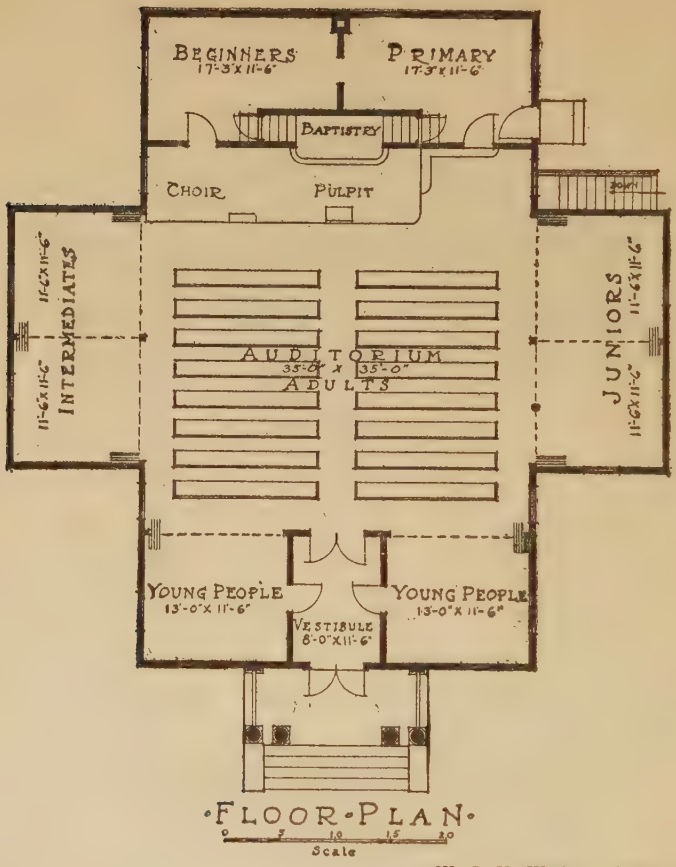


—*W. J. H. Wallace, Architect.*

Side Elevation.

TYPICAL DESIGN FOR CHURCH BUILDING WHICH PROVIDES FOR 150 IN THE SUNDAY SCHOOL.

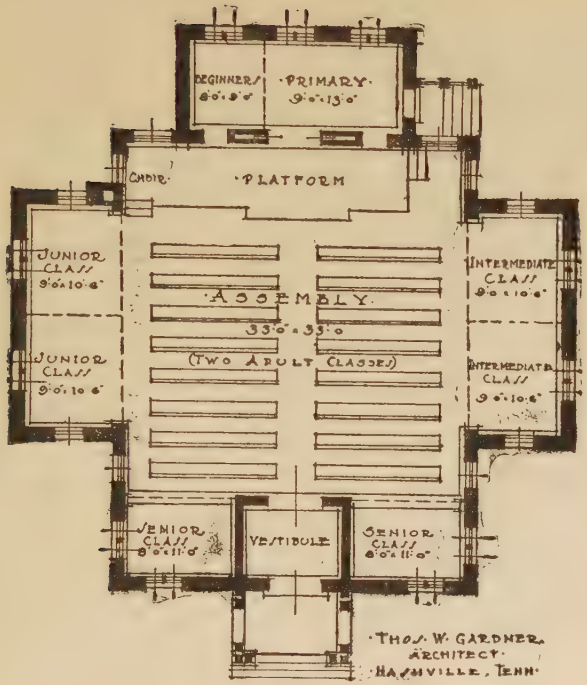
For floor plan see next page.



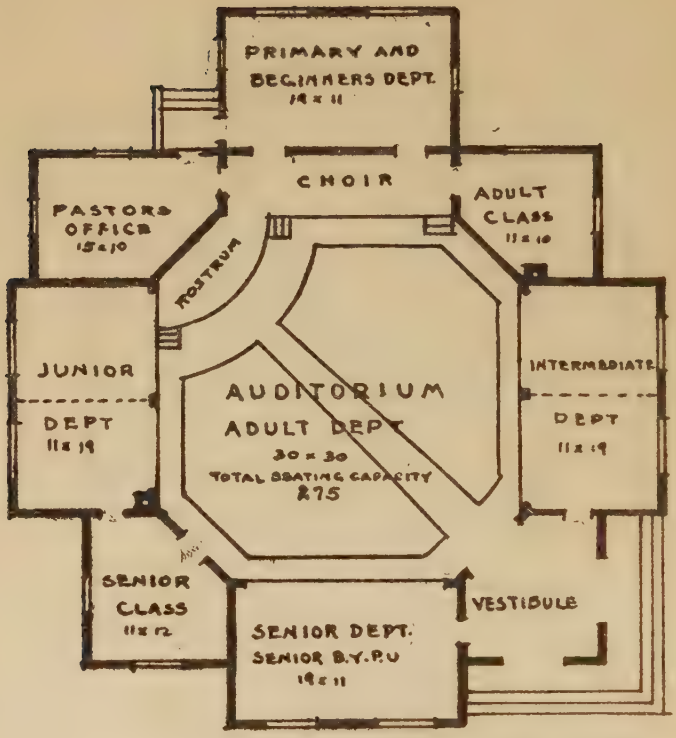
—W. J. H. Wallace, Architect.

TYPICAL DESIGN FOR CHURCH BUILDING WHICH PROVIDES FOR 150 IN THE SUNDAY SCHOOL.

For a similar design with simpler and less expensive development see page 121.

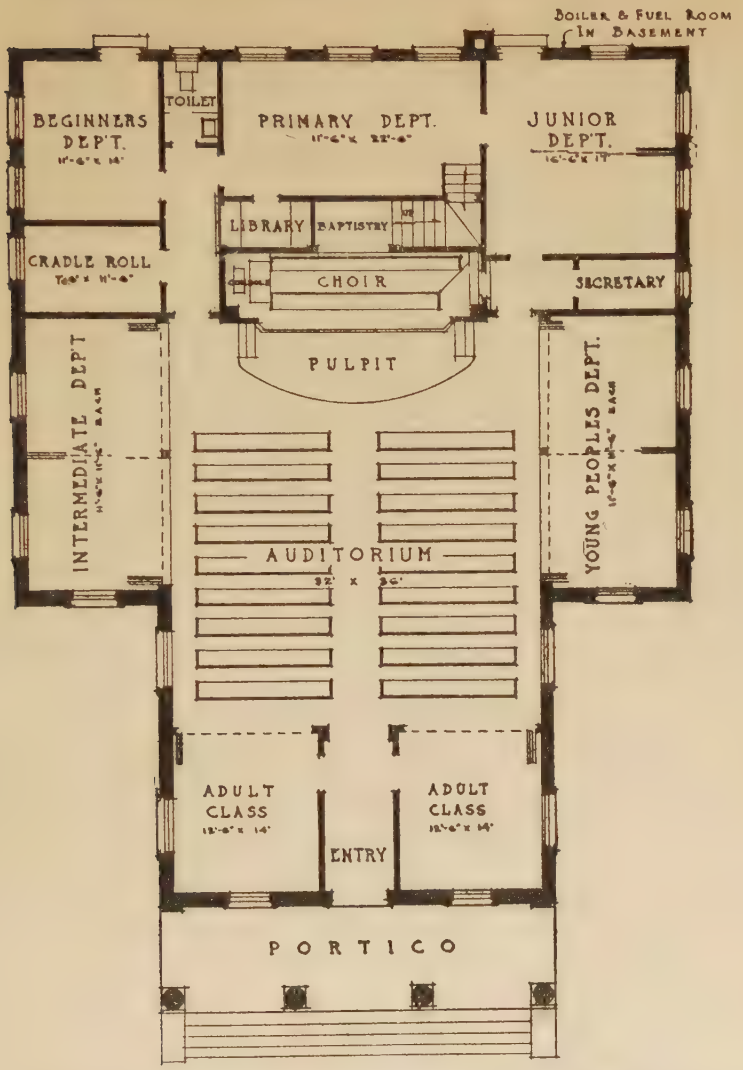


THE DONELSON (TENN.) BAPTIST CHURCH.
Exterior is shown on page 123.



C. W. Bulger and Son, Architects.

ATTRACTIVE AND CONVENIENT SMALL CHURCH DESIGN.
See exterior, page 127.



—*R. H. Hunt, Architect.*

TYPICAL DEPARTMENTAL BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 150 TO 200 MEMBERS.

For perspective, see page 127.

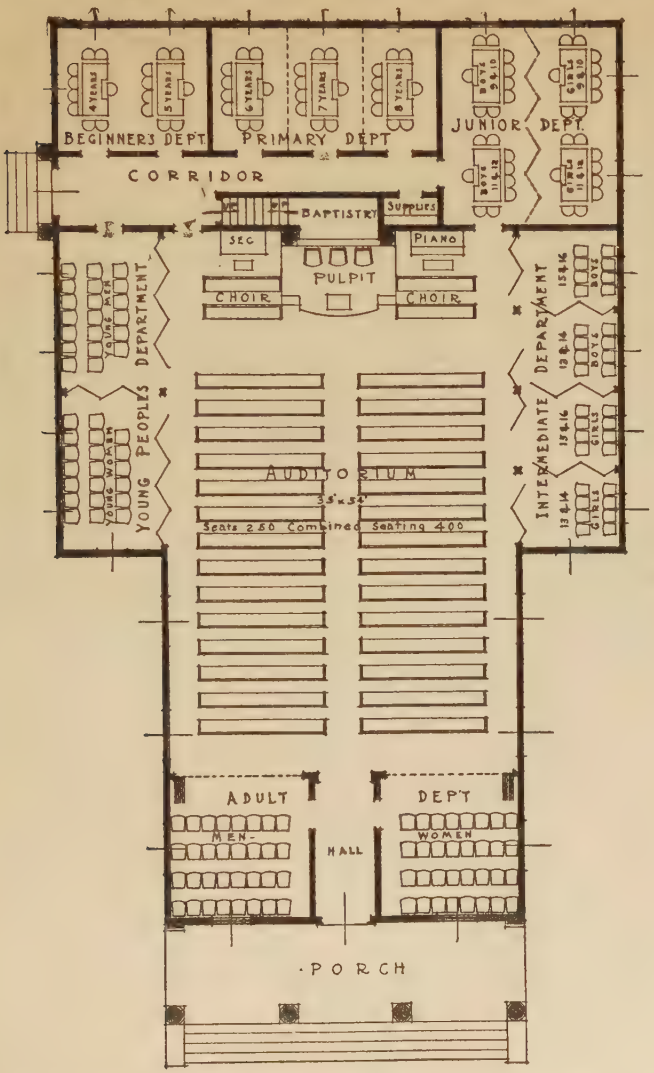
Chapter XIV

BUILDINGS FOR CHURCH AND SUNDAY SCHOOL NUMBERING 300 TO 400

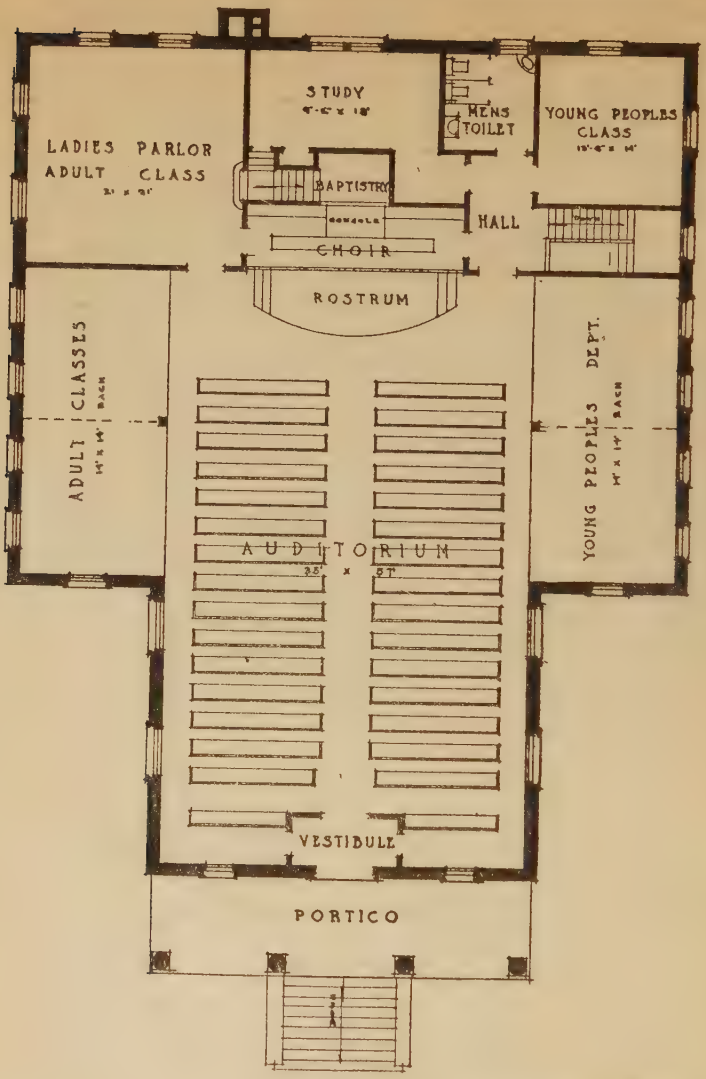
In accordance with the schedule already proposed, a building providing for a Sunday school of 300 should offer space somewhat as follows:

	Pupils	Sq. Ft.		
Cradle Roll Class	9	126		1 Class Room
Beginners.....	18	252	Assembly Room	
Primaries.....	27	378	" "	3 Class Rooms
Juniors.....	36	504	" "	4 " "
Intermediates...	36	504	" "	4 " "
Young People...	72	1,008	" "	3 (?)" "
Adults.....	102	1,428	" "	3 (?)" "
	300	4,200	6 Assembly Rooms	18 Class Rooms

CHURCH AND SUNDAY SCHOOL OF 300 TO 400



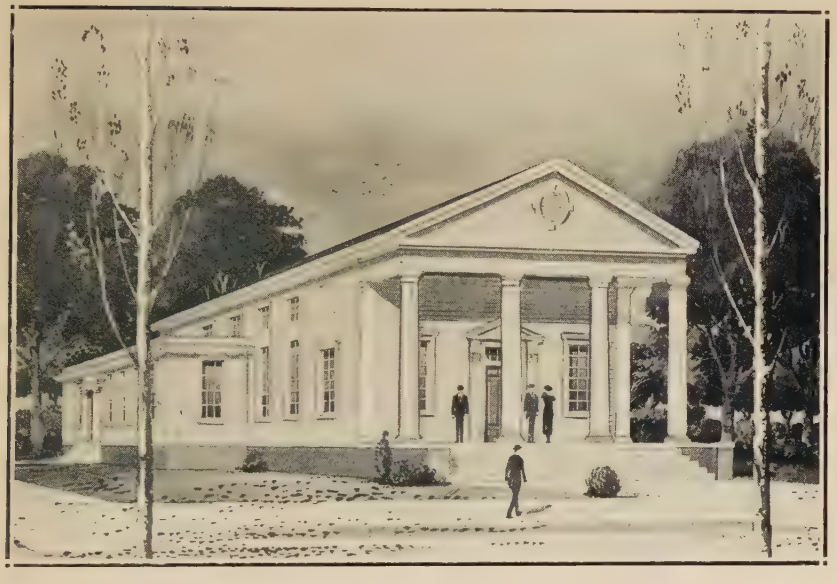
DEPARTMENTAL BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 300.
Perspective is shown on page 137.



—*R. H. Hunt, Architect.*

MAIN FLOOR PLAN.

Typical Departmental Building for Church and Sunday School of 300 to 400.
Perspective is offered on page 139.
Ground floor plan is shown on page 141.



—*R. H. Hunt, Architect.*

DEPARTMENTAL BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 300

We show above a convenient and inexpensive building design. The normal capacity of the auditorium can be almost doubled by opening the adjoining class rooms. The building may be of frame construction or other building materials may be used. The fuel and furnace rooms should be placed under the Junior Department. The cost would vary widely according to the location and the materials used. The architect's estimate of cost with frame construction, is $17,500; with brick-veneer construction, $23,200. See floor plan on page 135.

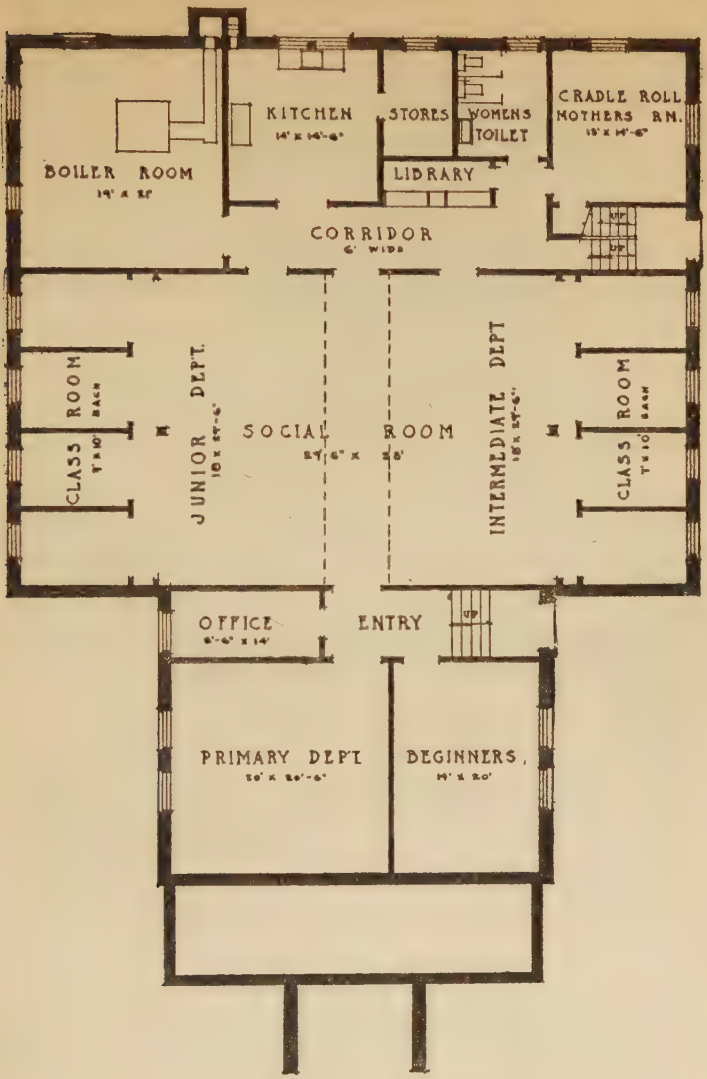
—R. H. Hunt, Architect.

TYPICAL DEPARTMENTAL BUILDING FOR CHURCH AND SUNDAY SCHOOL OF 300 TO 400.

We offer above a building design providing auditorium with capacity as follows: Main room, 250; class rooms, 112; choir, 20; total, 382. A balcony may be installed, in which case the capacity would be increased to approximately 500.

The Junior and Intermediate Departments are separated by two folding partitions, making a hallway. When these partitions are thrown back the whole space can be used as a social room.

The building measures over all 65 by 101 feet. The cubical content is 168,000 cubic feet. At 20 cents per cubic foot, the cost would be $33,600. See floor plans on pages 136 and 141.



—*R. H. Hunt, Architect.*

GROUND FLOOR PLAN.

Typical Departmental Building for Church and Sunday School of 300 to 400.

FRONT ELEVATION
Scale ¼"=1'-0"

SIDE ELEVATION
Scale ¼"=1'-0"

—W. J. H. Wallace, Architect.

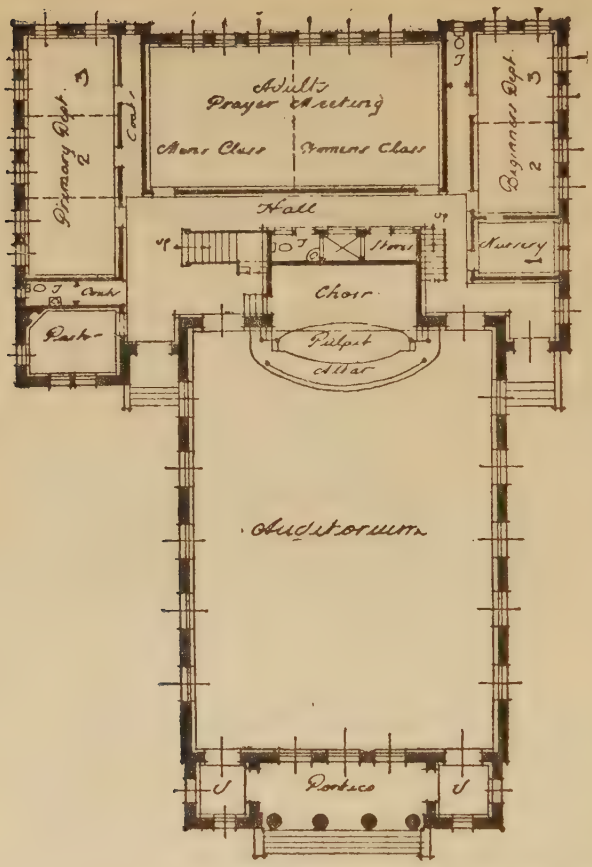
SIDE ELEVATION.

Design for Small Church Building.

(Floor Plans on Next Page)

The building measures, over all, 40 x 70 feet. Cubic contents, 105,000 cubic feet. At 18 cents per cubic foot, the building would cost $18,900. Auditorium seats 215, choir 18, class room 32, balcony 35; total 300.

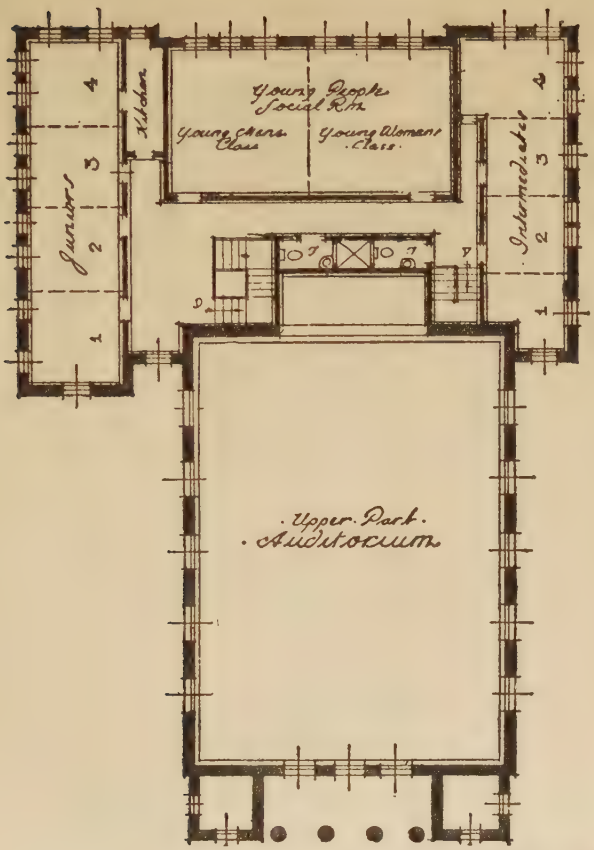
DESIGN FOR SMALL CHURCH BUILDING. (ELEVATIONS ON PAGE 142) —*W. J. H. Wallace, Architect.*



T. F. Lockwood, Architect.

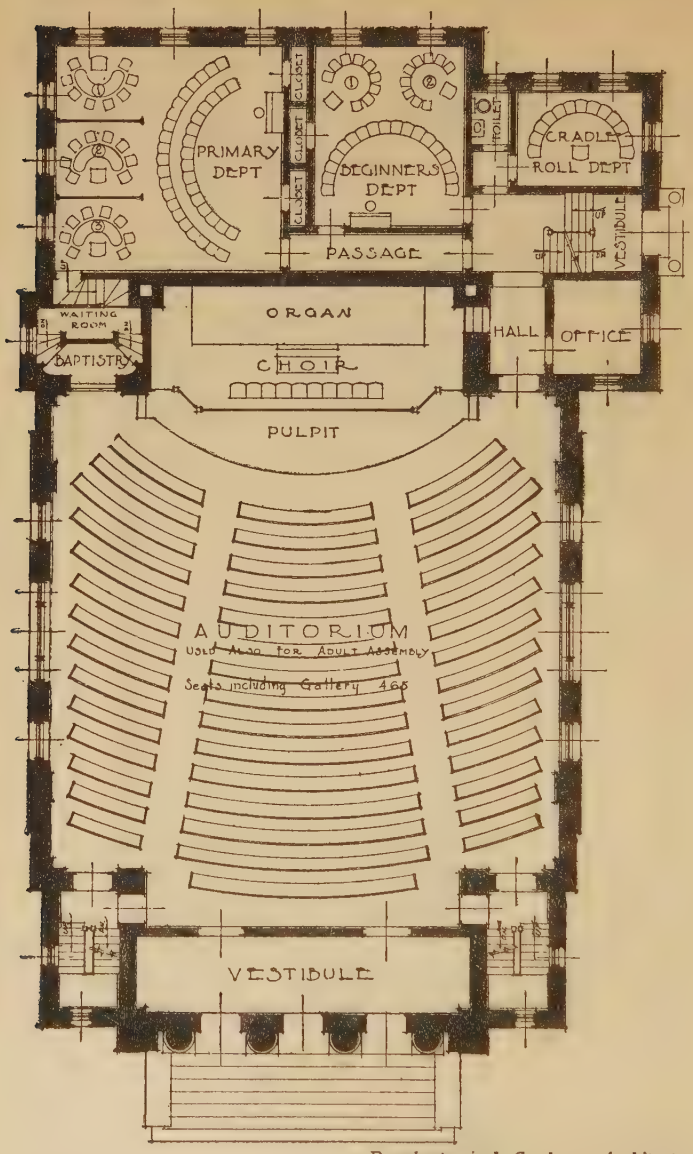
MAIN FLOOR PLAN.

First Methodist Episcopal Church, South, Moultrie, Ga.
(The floor-plan arrangement has been slightly revised in accordance with principles proposed in these pages.)



T. F. Lockwood, Architect.

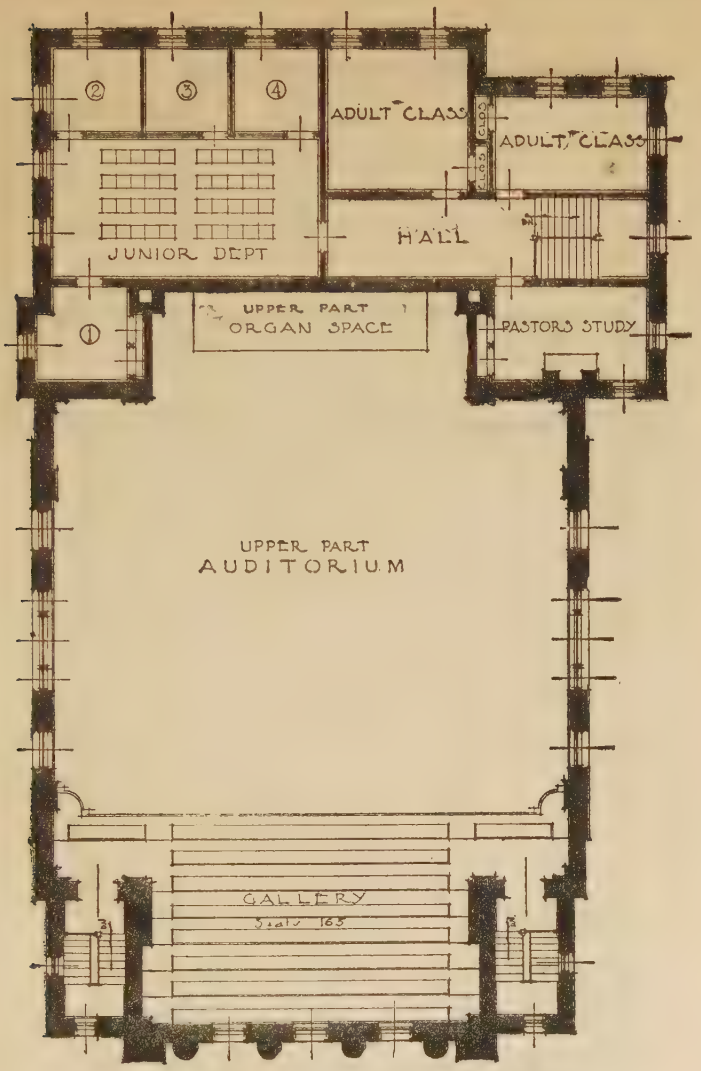
SECOND FLOOR PLAN.
First Methodist Episcopal Church, South, Moultrie, Ga.



—*Dougherty and Gardner, Architects.*

MAIN FLOOR PLAN.

Preliminary Sketch for the First Baptist Church, Lewisburg, Tenn.
A Standard Building for Church and Sunday School Numbering 400.
The cubical content of this building is 208,941 cubic feet. At 25 cents per cubic foot, the cost of the building would be $52,235.



—Dougherty and Gardner, Architects.

BALCONY FLOOR PLAN.

Preliminary Sketch for the First Baptist Church, Lewisburg, Tenn.
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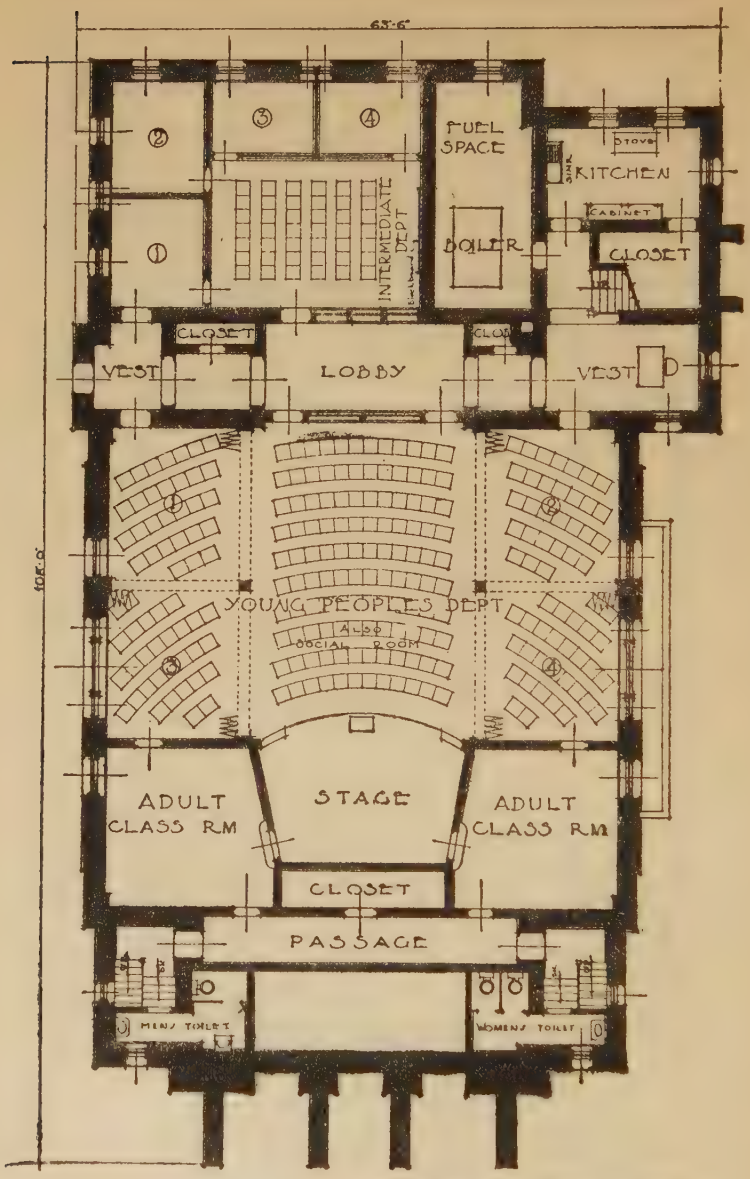

—Dougherty and Gardner, Architects.

GROUND FLOOR PLAN.
Preliminary Sketch for the First Baptist Church, Lewisburg, Tenn.
A Standard Building for Church and Sunday School Numbering 400.

Chapter XV

ARCHITECTURAL COMPETITIONS

Carefully-arranged and properly-ordered competitions among architects are properly regarded with favor. Architects of the highest standing are willing to enter such competitions. It is, of course, different with free and unregulated competitions. Building committees sometimes ask various architects to submit sketches or designs, with a view to secure without cost the ideas and suggestions of the architects and, of course, with the thought of making selection among the architects. Such a course is unfair to the architects, and is fraught with danger to the proposed building project. It is worth while in this connection to ponder the words of Mr. Sydney R. Badgley:

"Architects should be selected just as men in other professions are selected, namely, on the basis of their professional merit and integrity of character. How many doctors, dentists, lawyers, or artists would enter a 'free' competition, and submit a prescription, set of teeth, brief, or portrait, to be judged by a committee of non-professionals, and returned with or without a 'thank you' if their work did not please? What class of men in these professions would enter such a race? Would their services be desirable?"

As illustrative of the carefully-regulated competition which may safely be expected to bear good fruit, we may

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As illustrative of the carefully-regulated competition which may safely be expected to bear good fruit, we may

demonstrated ability to produce the proper design.

Messrs. Dougherty & Gardner, Nashville, Tenn., were the winners in the competition. After the architects were selected, the design was further studied and perfected in co-operation with the local committee.

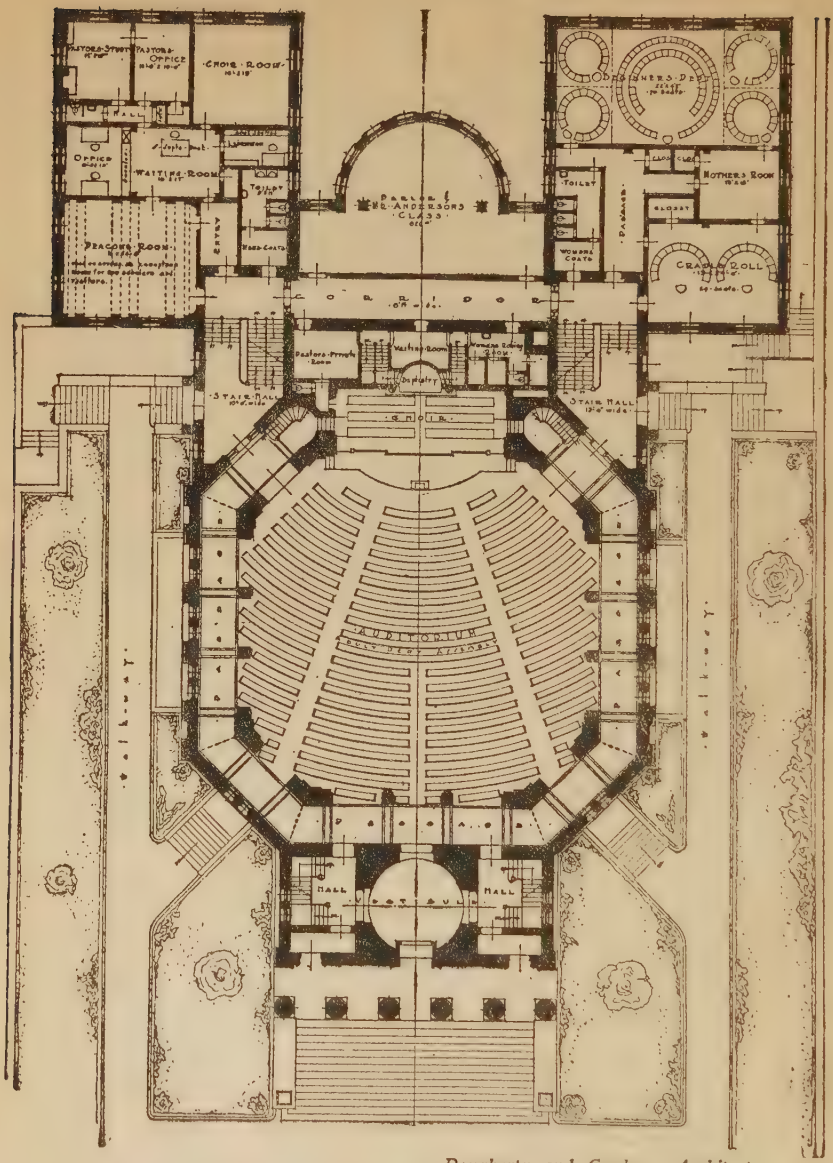
The auditorium seats 1,400; the Sunday-school capacity is as follows: Mothers' Room, 30; Cradle Roll Room, 30; Beginners, 70; Primaries, 134; Juniors, 200; Intermediates, 200; Young People, 400; Adults, 700; total Sunday-school capacity, 1,764.

We present in the following pages the winning design which was completed and perfected.

A Simpler Form of Competition.

In this case, as in the other, a professional Adviser is selected, but the competing architects, instead of submitting drawings specially made with a view to the solution of the given problem, are asked to submit specimens of work already performed, photographs, drawings and other material out of their offices. The Adviser studies and compares these various specimens of work, and in a written report to the Owner gives his advice concerning the relative ability and merits of the architects.

The latter method would, of course, lead only to the selection of an architect and not to a design which would offer a solution of the problem in question. It would cost less, since only the Adviser would need to be compensated, while, with the other method, not only the Adviser, but the competing architects and the jury of award would have to be paid for their services. It would require less time, since no new drawings would have to be made. In the case of the Knoxville competition outlined above, the committee expended about $5,000 and the process consumed the greater part of a year.



—Dougherty and Gardner, Architects.

MAIN FLOOR PLAN.

First Baptist Church, Knoxville, Tenn. See front and side elevations, pages 153 and 155.

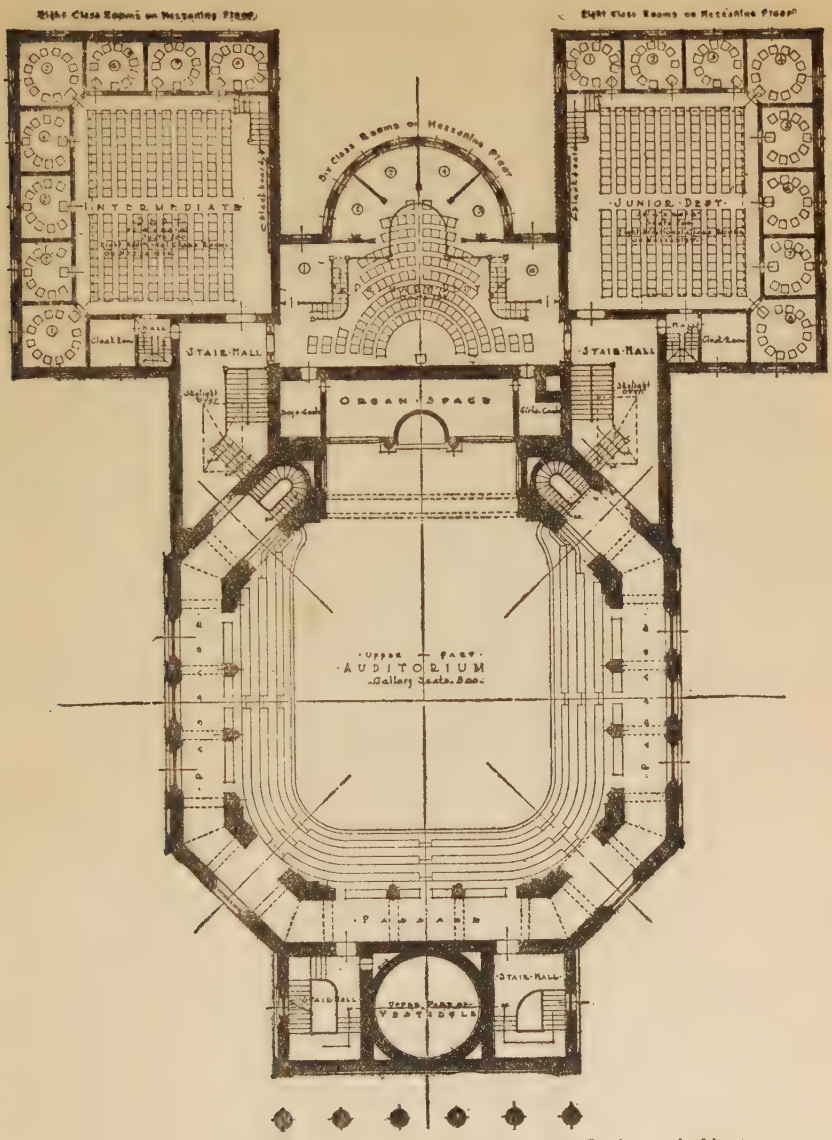
—Dougherty and Gardner, Architects.

FRONT ELEVATION, FIRST BAPTIST CHURCH, KNOXVILLE, TENN.

Contract was awarded November 8, 1922, $381,000. See floor plans on pages 152 and 157-159.

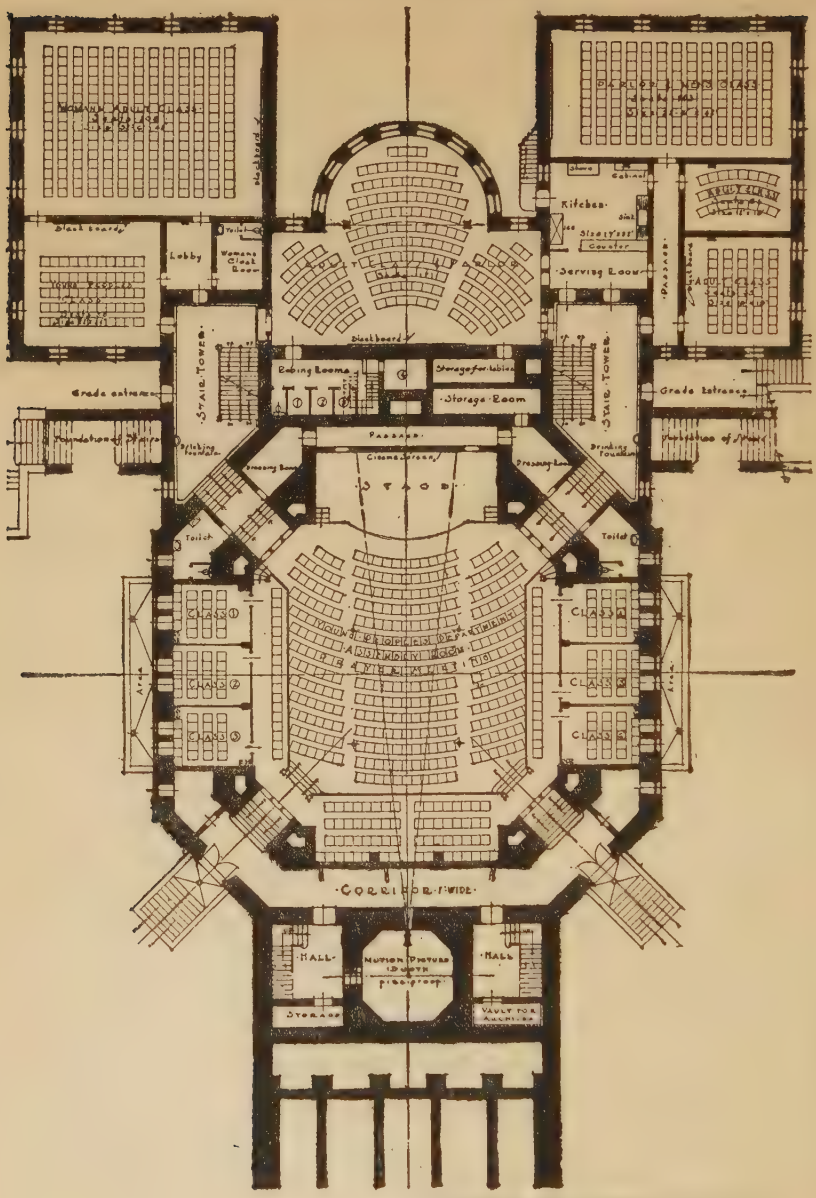
—*Dougherty and Gardner, Architects.*

SIDE ELEVATION, FIRST BAPTIST CHURCH, KNOXVILLE, TENN.



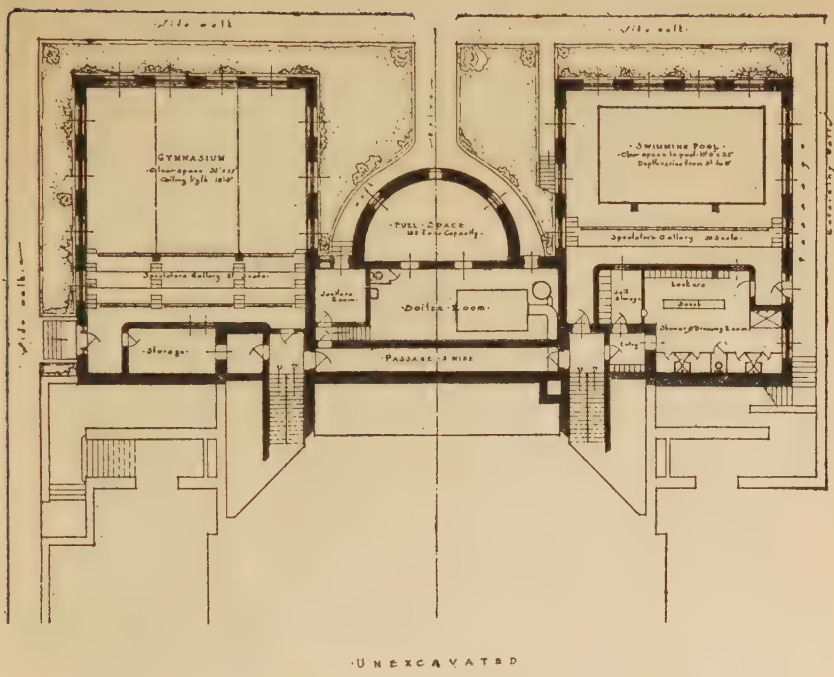
—*Dougherty and Gardner, Architects.*

BALCONY FLOOR PLAN.
First Baptist Church, Knoxville, Tenn.



—Dougherty and Gardner, Architects.

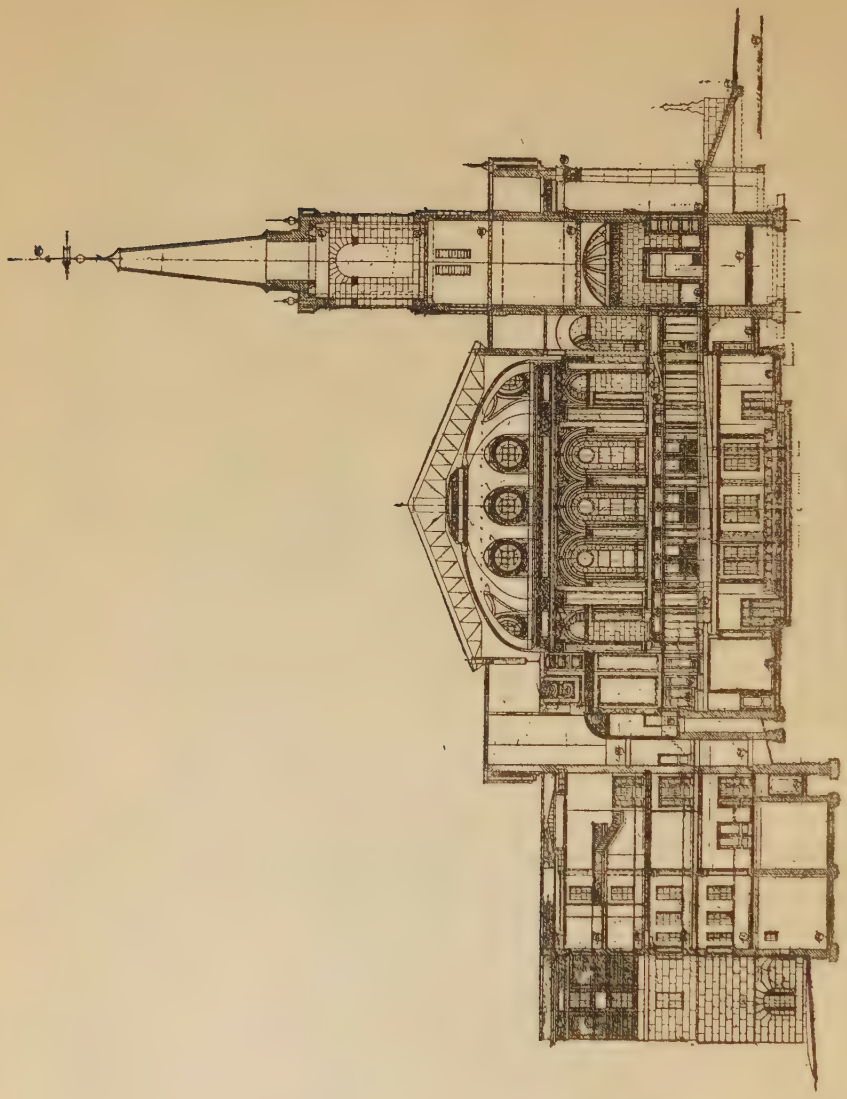
GROUND FLOOR PLAN.
First Baptist Church, Knoxville, Tenn.



—*Dougherty and Gardner, Architects.*

RECREATION (BASEMENT) FLOOR PLAN
First Baptist Church, Knoxville, Tenn.

On account of a heavy slope in the lot (see page 155) it was possible to secure this basement under the ground floor.



LONGITUDINAL SECTION
First Baptist Church, Knoxville, Tenn.

Chapter XVI

REMODELING CHURCH BUILDINGS

We offer first some suggestions as to the remodeling of small buildings. There are in this country some 60,000 one-room church buildings. The church which worships and conducts all of its activities in such a building is sadly handicapped. New ideals of Sunday-school work and of church activity are permeating the country districts and our small churches are awakening to the new day. As they do so, they find in their one-room houses a heavy handicap.

It is really wonderful what a skillful architect can accomplish in the way of remodeling present buildings, small or large. Furnish such an architect with these items of information, and he will do the rest: (1) Size and description of lot; (2) kodak pictures of present building; (3) height of wall and pitch of roof; (4) penciled sketch of floor plan drawn to scale; (5) additional needs which ought to be supplied; (6) amount of money which is to be expended.

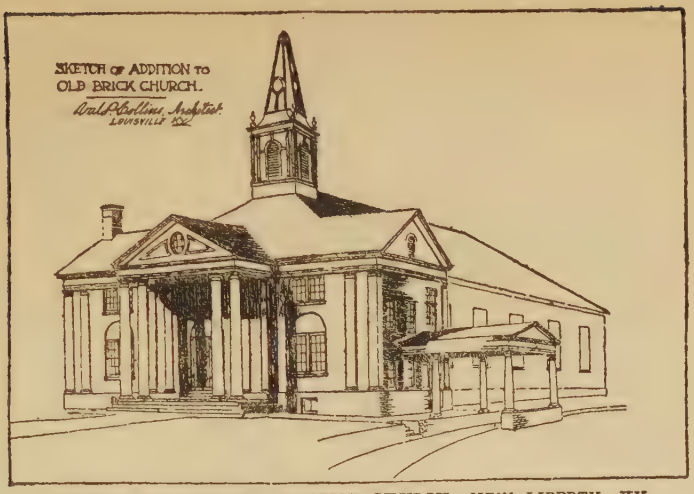
It is often difficult to determine whether the old building should be remodeled or whether it is wiser to pull down the old building and erect a new one. When serious doubt exists, the question may well be referred to an architect for his advice. Assuming that the present building is in good repair and by certain modifications

might still serve the community, we suggest the following methods of remodeling:

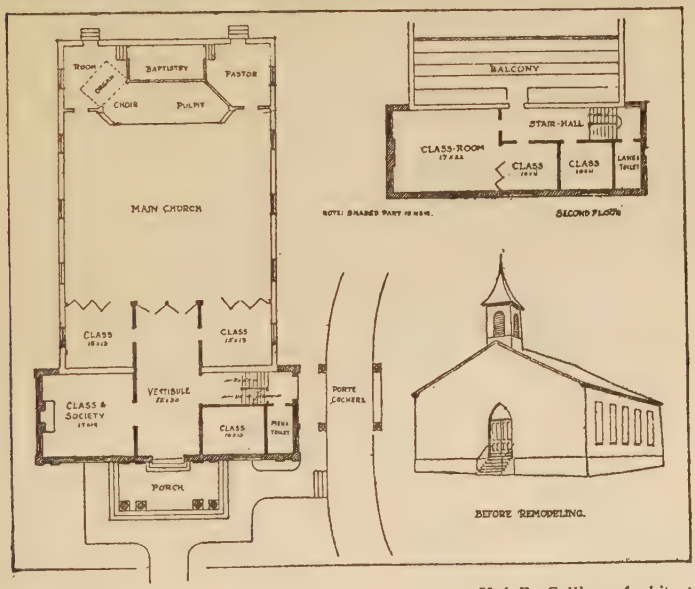
An addition may be made at the front of the present building. This method of remodeling involves considerable expense, but an old building may in this way be given an attractive, modern appearance. An addition may be made at the back of the present building, or both at the back and on the sides.

Balconies may be installed where the height of ceiling permits. Balconies may enhance the beauty of the auditorium and offer much added space.

Any number of the above methods may be combined, as is shown in drawings offered on page 166.



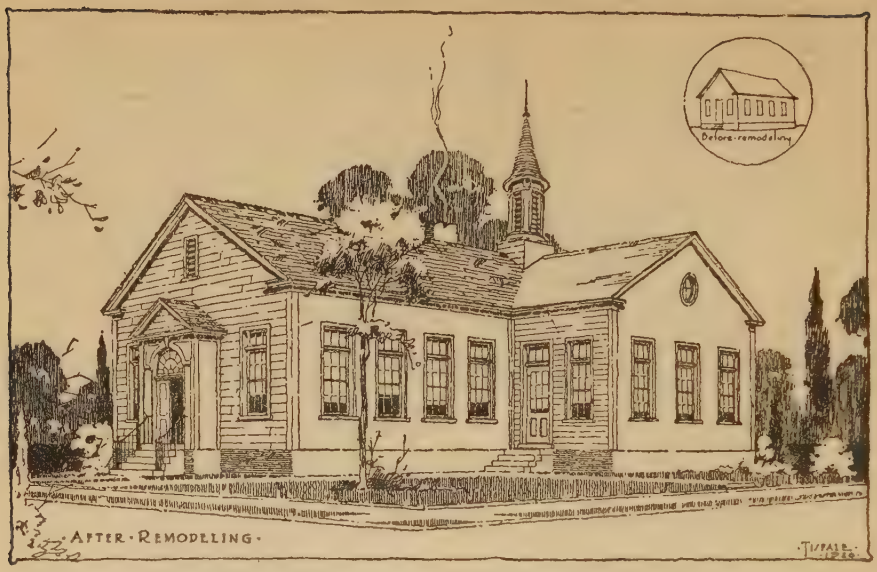
PROPOSED REMODELING, BAPTIST CHURCH, NEW LIBERTY, KY.



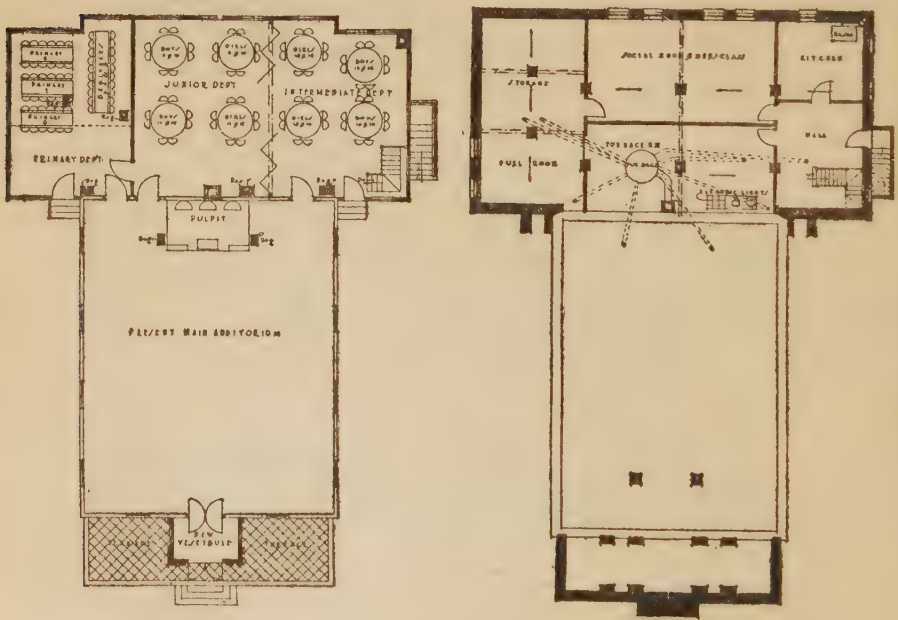
—Val P. Collins, Architect.

FLOOR PLAN PROPOSED REMODELING, BAPTIST CHURCH, NEW LIBERTY, KY.

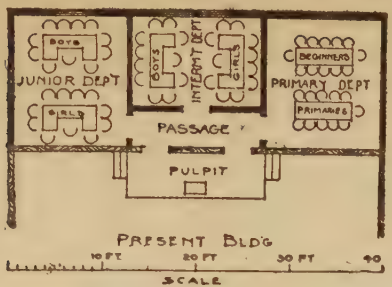
The above drawings show how a one-room building may be transformed into an attractive church house with some facilities for modern Sunday-School work.



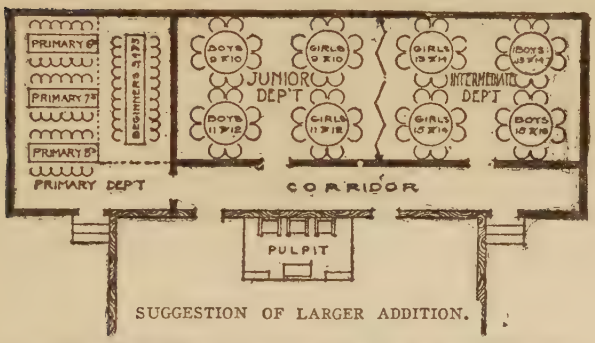
PROPOSED REMODELING, SHOWING HOW ONE-STORY AND BASEMENT MAY BE ADDED TO THE REAR, AND A TERRACE AND VESTIBULE IN FRONT.



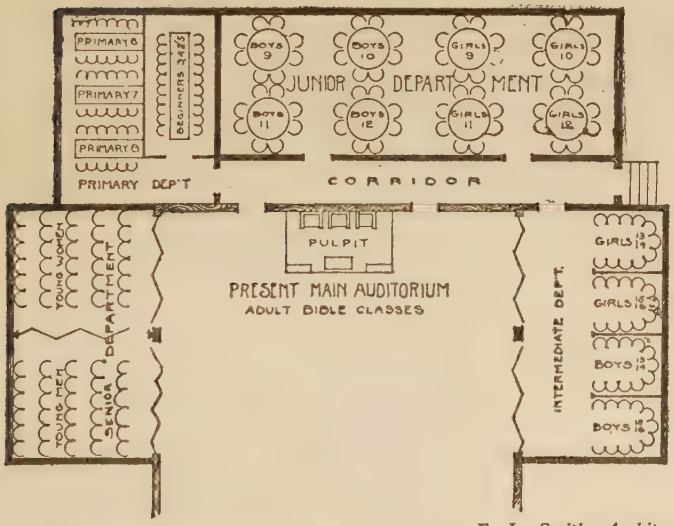
PROPOSED REMODELING, SHOWING HOW ONE-STORY AND BASEMENT MAY BE ADDED TO THE REAR, AND A TERRACE AND VESTIBULE IN FRONT.



SUGGESTED ADDITION TO REAR OF BUILDING.

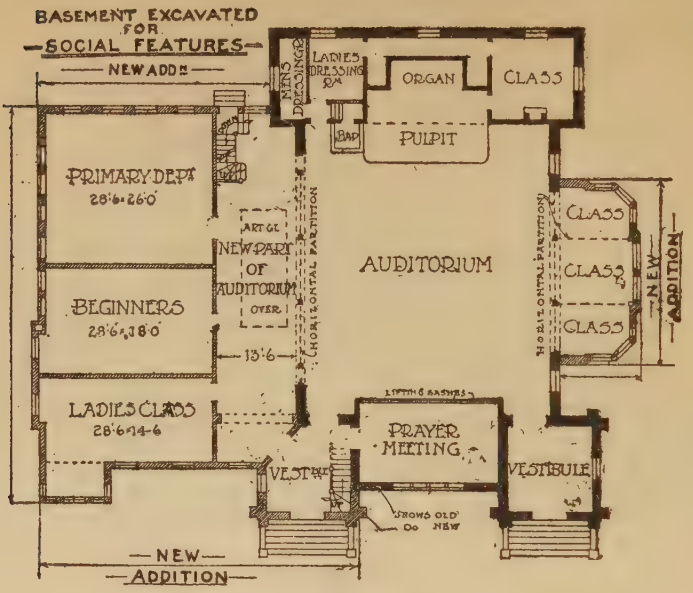


SUGGESTION OF LARGER ADDITION.

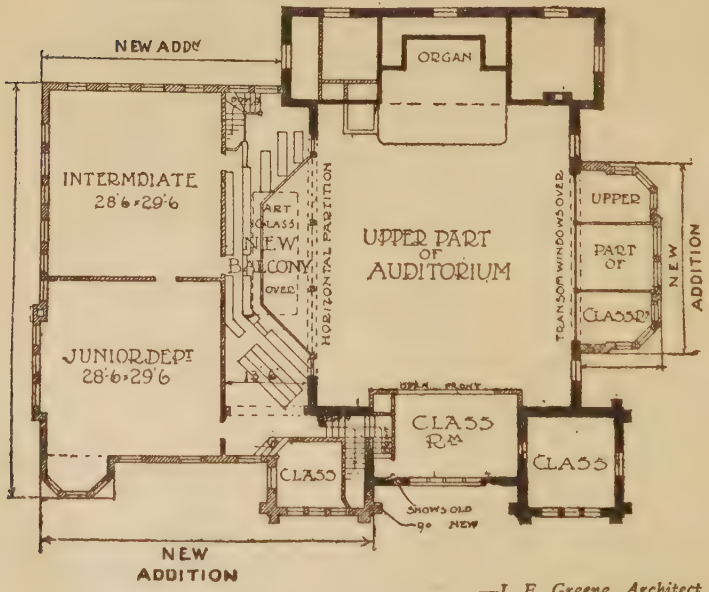


—*F. L. Smith, Architect.*

SUGGESTION FOR ADDITION TO REAR AND SIDES OF BUILDING.



FIRST FLOOR.
Remodeled Washington, Ga., Baptist Church.



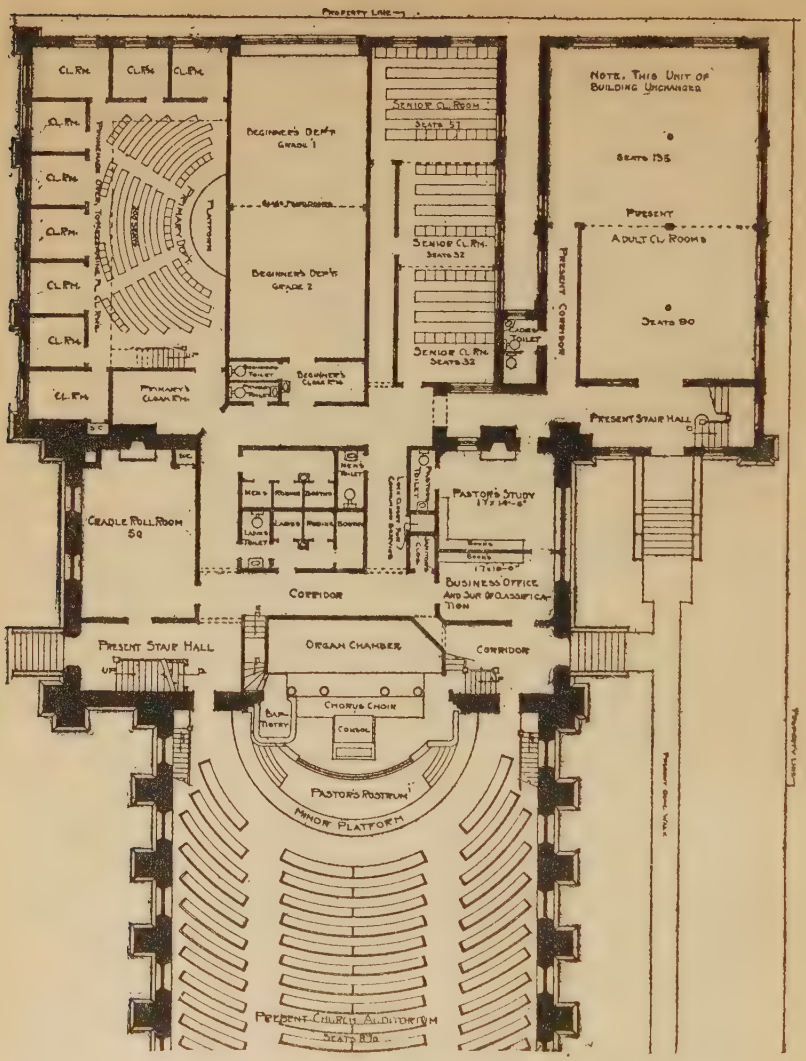
—*J. E. Greene, Architect.*

SECOND FLOOR.
Remodeled Washington, Ga., Baptist Church.
See perspective, page 169.

REMODELING LARGER BUILDINGS

The remodeling of larger buildings offers, of course, peculiar difficulties and calls always for the guidance of an experienced architect. A careful schedule should be made of the provisions needed to house the enlarging activities of the church. In the light of such a schedule, the old building should be carefully studied with a view to determine which departments of the Sunday school can properly be cared for in the old building and which departments must be provided for in the new construction. As a suggestion of what may be accomplished in this line, we show the remodeled Citadel Square Baptist Church, Charleston, S. C. Considering the difficulties encountered, the result is really remarkable.

The proposals above outlined were followed by the architect in his effort to transform an old building into a modern workshop. A careful schedule was made of the provisions needed to house the enlarged church and Sunday-school growth. The old building was faithfully studied with a view to determine what department of the Sunday-school and what church activities it might properly accommodate. Then plans were made for new construction to complete the housing needs. In this way the architect wrought out a harmonious plan which compares favorably in its provisions for church and Sunday-school work with the choicest plans offered in these pages.



—*H. L. Cain, Architect.*

MAIN FLOOR PLAN.

Remodeled Citadel Square Baptist Church, Charleston, S. C.

See cut showing addition, page 171.

Balcony and ground floor plans are shown on pages 173 and 174.

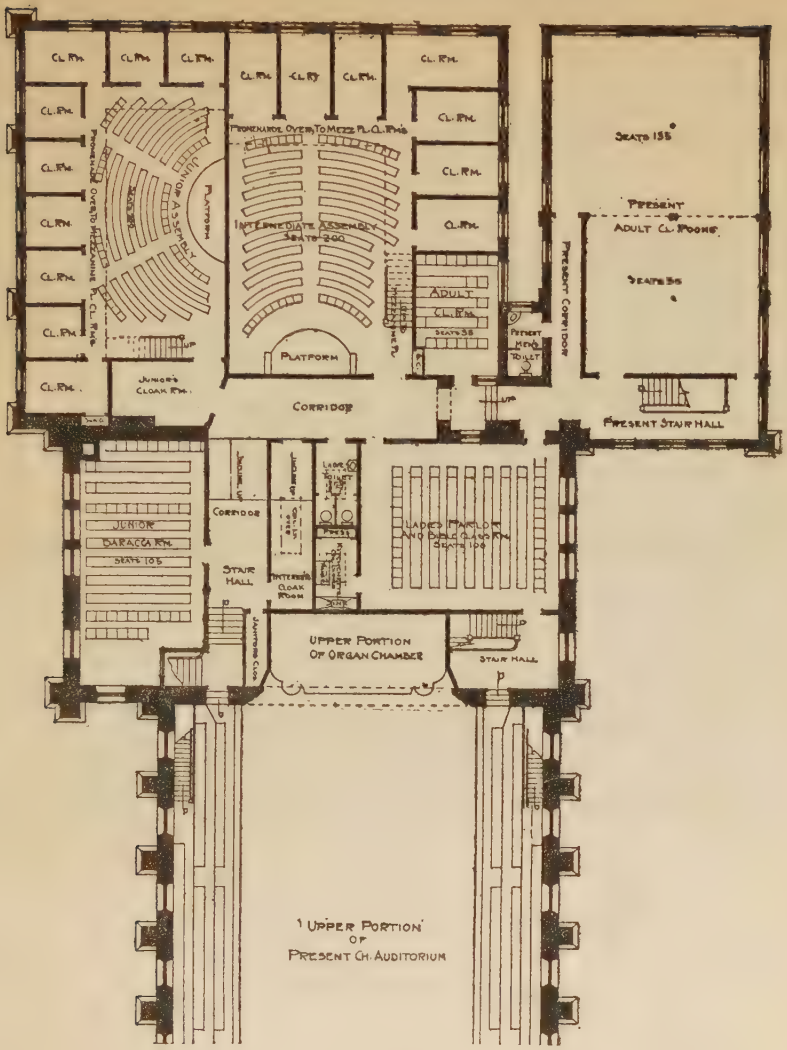
—*J. E. Greene, Architect.*

THE REMODELED WASHINGTON, GA. BAPTIST CHURCH
Remodeled at cost of $20,000. See floor plans on page 166.

—H. L. Cain, Architect.

SUNDAY SCHOOL BUILDING ADDED TO THE CITADEL SQUARE BAPTIST CHURCH, CHARLESTON, S. C.

See floor plans on pages 168, 173 and 174.



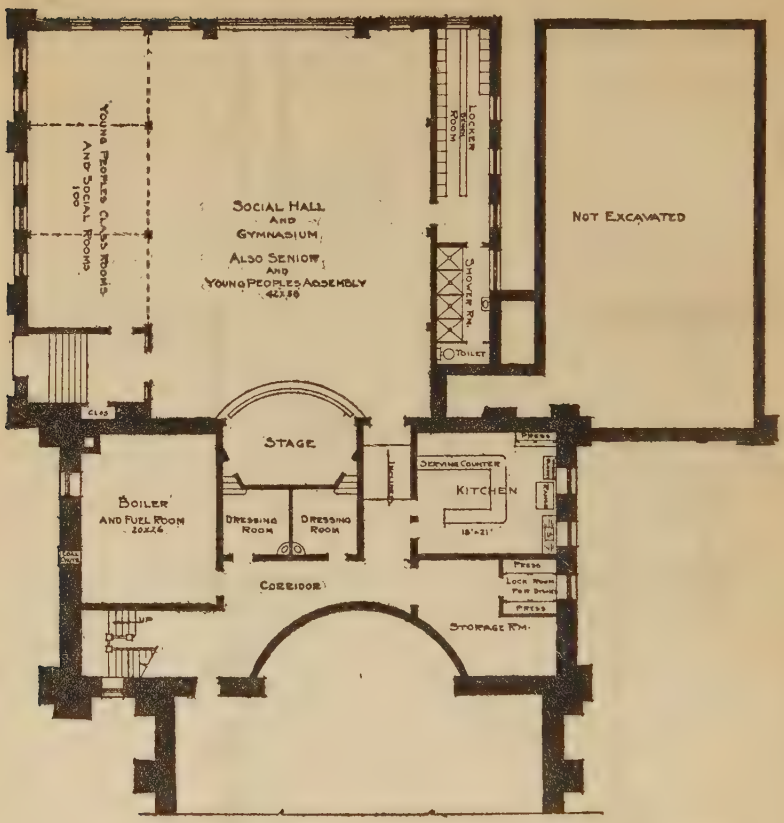
—*H. L. Cain, Architect.*

BALCONY FLOOR PLAN.

Remodeled Citadel Square Baptist Church, Charleston, S. C.

The Junior and Intermediate Departments offer class rooms on mezzanine floors.

See page 56.



—*H. L. Cain, Architect.*

GROUND FLOOR PLAN
Remodeled Citadel Square Baptist Church, Charleston, S. C.

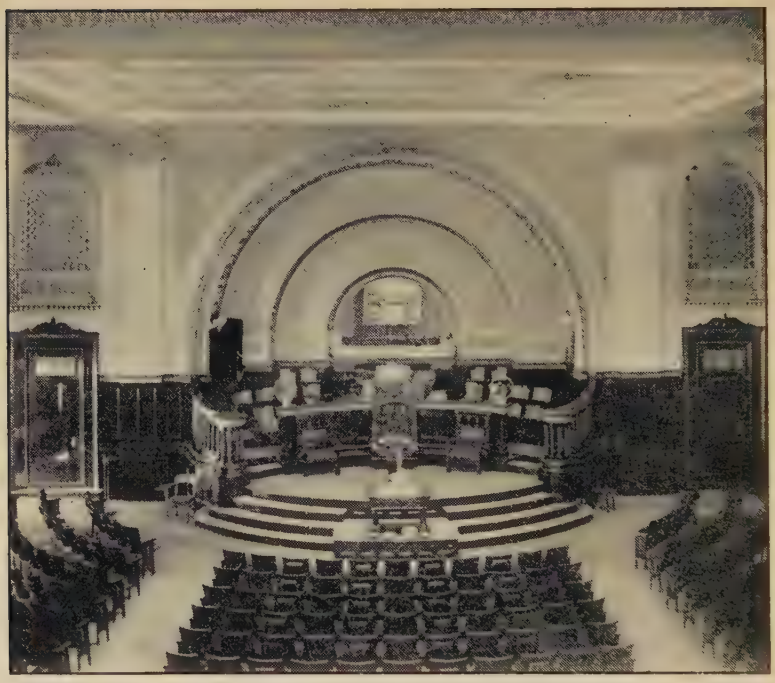
—*Russell A. Hart, Architect.*

THE PULPIT ARRANGEMENT IN IMMANUAL BAPTIST CHURCH, NASHVILLE, TENN.

The unique and beautiful baptistry is at the right, while the communion table is at the left, the church being "built around the ordinances."

PULPIT ARRANGEMENT IN THE THIRD BAPTIST CHURCH, ST. LOUIS, MO.

Note the "grill" organ instead of the "pipe" organ. The grill organ is meeting favor, especially where it is desirable to locate the baptistry under the organ. In the above view we have first the pulpit platform, then the chorus choir, and elevated in the rear is the baptistry. For similar pulpit arrangement, see the First Baptist Church, Shreveport, La., on the following page.



—*C. W. Bulger and Son, Architects.*

PULPIT ARRANGEMENT IN THE FIRST BAPTIST CHURCH, SHREVEPORT, LA.

This picture may well be studied in connection with the drawing offered on page 32. The baptistry is at the center and slightly elevated above the choir. The organ tones emerge from the grill work and the traditional pipes are dispensed with. In front of the platform proper is a lower secondary platform to which the pastor may descend for exhortation, for the reception of penitents or of new members, and for administering the memorial supper. Under the arms of the large pulpit chair are buttons with electrical connections by which the pastor may summon the janitor, the chief usher and other officials. On the pulpit is a radio "receiver" which, with the radio equipment on top of the church, makes it possible to send the pastor's messages out to the world.

Chapter XVII

THE BAPTISTRY

When churches require a baptistry, the architect should make the baptistry an integral part of the design. The fact that certain architects do this possibly explains why they win a reputation for building beautiful and satisfactory baptistries.

The location of the baptistry is a question of importance. Custom varies widely here, and thoughtful architects are giving the whole question careful study. An examination of the plans given in these pages will yield suggestions. It will be observed that in the larger number of these plans the baptistry is placed back of and above the choir. This arrangement is meeting with increasing favor.

The ordinance of baptism has little meaning and message, save as it can be easily and distinctly seen. In locating the baptistry, this fact must be kept in mind. An evangelist of wide experience in various sections declares that very many baptistries are so placed that the symbolic burial largely loses its significance because the congregation can not see with ease. The author has recently examined a baptistry arrangement which permitted only about two-fifths of the audience to witness the ordinance.

Entrance into the water and exit from the water should always be so arranged as to be away from the view of

the audience. The burial is, of course, the only part with which the audience is concerned.

It is hardly necessary to suggest that the water in the baptistry should be brought to a proper temperature to secure comfort, both for the minister and for those who are to be baptized. This is usually accomplished by installing a special heater for this purpose.

The Construction of the Baptistry.

At the request of the author, Mr. C. C. Bulger, an architect of wide practical experience, has prepared the following notes touching the construction and proper dimensions of the baptistry and robing rooms.

"In our practice, both for small and large churches, we advocate the wood-framed, metal-lined baptistry. This consists of substantial foundation and framework sheated solid inside. The lining should be galvanized iron—locked, riveted and soldered together at joints. The interior is treated with red mineral paint, followed by building up with flat white and finished with two coats of best grade enamel. This construction will last indefinitely under ordinary usage. We have examples nearly twenty years old which are as good as new.

"Another type of baptistry is of concrete construction. We do not advise this, on account of the danger of leaking and the initial expense. Such baptistries may do well for a number of years and then give trouble. The best treatment for inside of concrete baptistries is marble or tile.

"A full size baptistry would be eight feet long, five feet wide, and three and one-half feet deep. A minimum size baptistry would be seven feet long, four feet wide,

and three feet in depth. Every baptistry should have two depths arranged to accommodate children and adults. Thirty inches is a suitable depth for the average child; forty to forty-two inches is desirable for adults. The raised place might properly be in the extreme front of the baptistry, leaving the center for adults. The water level should be six inches below the top of the baptistry to prevent the water from splashing over."

The Treatment of Robing Rooms.

"In small churches the robing rooms can be made sufficiently large to be used for other purposes, such as secretary's room or class room. When it is desired to use the room for a robing room, galvanized pans can be provided and installed on the floor to receive the garments. These pans should be about two inches in depth and three feet square, with a dull roll edge rim. The pans may be placed in a closet when not in use.

"The most desirable arrangement is to have a room of convenient size, with stalls provided for individual candidates. One of these stalls should be a toilet. Where it is not feasible to provide permanent partitions for these stalls, canvas curtains should be provided. These stalls should be about three and one-half feet wide, and from four to six feet in depth. They should be adequately lighted.

"In special robing rooms, where it is not intended to use the space for other purposes, it is desirable to have either a concrete or galvanized iron water-tight flooring covered with slats for quick and satisfactory draining. These under-floors should be connected with a storm sewer."

Chapter XVIII

THE ORGAN

Important among the things which make for a successful and satisfactory building is an organ of good tone and sufficient volume. If for any reason purchase of the organ must be deferred, the new building is used at a decided disadvantage. Building committees, architects and others interested are usually quick to appreciate this fact, and hence in most cases effort is made, even at considerable sacrifice, to install the organ on completion of the building.

The location of the organ must, of course, depend upon the design which the architect is developing. A central location, immediately back of the pulpit, is generally desirable. The organ should, of course, be close to the choir. Half of it may be placed on one side of the choir and half on the other.

Careful attention should be given to the space required by the organ. Serious difficulty and not a little expense may be encountered by failure to provide room for the tuner or repairer. While rectangular space is to be preferred as being more economical, the organ builder can construct the organ for almost any kind of space, provided there is sufficient room.

The Austin Organ Company, Hartford, Conn., has, at the request of the author, prepared a table of dimen-

sions for organs ranging in price from $2,000 to $10,000. This schedule is only suggestive. Organs vary widely, and often they can be planned to advantage in unusual spaces where additional height, for instance, makes up for smaller floor space. Again, additional width may take the place of depth. Spaces where corners are taken off are wasteful because organ chests are necessarily rectangular in shape. If this table is used as a suggestive rather than an absolute guide, it may furnish a general basis of estimate which will be of value.

TABLE OF DIMENSIONS FOR ORGANS

Cost	Width	Depth	Height
$ 2,000	9′ 6″	5′	10′ 6″ to 14′
3,000	10′ 6″ to 12′	6′ to 7′	12′ to 14′
4,000	10′ 6″ to 12′	7′ to 8′	14′ to 16′
5,000	12′ to 14′	9′ to 10′	16′ to 18′
6,000	14′ to 16′	9′ to 10′	18′ to 20′
7,000	15′ to 18′	9′ to 12′	18′ to 20′
8,000	18′ to 22′	9′ to 12′	18′ to 20′
9,000	23′	9′ to 12′	18′ to 25′
10,000	23′ to 25′	12′ to 14′	18′ to 25′
Average Echo Organ:			
2,000	12′	5′	10′ 6″ to 14

Speaking from the standpoint of the architect, Mr. C. C. Bulger offers the following suggestions:

"The shape of the space for the pipe organ is as important as the number of square feet provided. Depth is more important than width. Eight feet for depth is practically the minimum for stock organs; eleven or twelve feet will take the majority of stock organs. All special and expensive organs should be taken care of by special specifications. The height should not be less than twenty feet for the average organ, more is preferable, and less than sixteen feet (except under special condi-

tions) is too small. Twelve feet in width is a good minimum."

How to Select an Organ.

Since organs must usually be made to order and thus can not be examined and tested in advance, there is necessarily a possibility of disappointment.

In selecting the organ, the service of a practical organist will be valuable. Such an organist can make up a complete schedule of the stops, the construction, the space, and other important items for submission to the organ builders. His counsel may contribute materially toward securing an organ which will give permanent satisfaction.

If it does not seem possible to utilize the service of such a practical organist, the next best step will be to frame a complete statement of needs, of space reserved for the organ, and enclose with a plan of the building and an estimate of the amount to be expended, to some reputable organ builder. The builder will make a study of all of this material and will submit a proposition. He may be able to make helpful suggestions.

If we are not technically familiar with organs, so that we can rely on our own judgment, we may well make careful selection of a builder and rely on his guidance. For uninitiated laymen to rely on competition or a comparison of builders' specifications is to court failure. The number of stops, pipes, manuals and the feet of casing can constitute no sure guide. Employ a reliable builder and let him advise on all of the essential points. It will be a matter of present concern and of future profit to him to find a proper and practical solution of your problem.

Shall it be "Pipe" or "Grill"?

The organs which are now being installed in theaters usually dispense with pipes and permit the organ tones to emerge through a grill construction. This arrangement is meeting with increasing favor in the case of church organs.

Chimes.—We may mention in this connection tower chimes. Many churches have found in these chimes a blessed ministry to their own congregation and to their community. Mr. George E. Fisher, in the following paragraph, expresses appreciation of the message of the bells in the tower of the Lake Avenue Baptist Church, Rochester, N. Y.

"Early in the morning they send out their appeal over the city and urge man to turn his steps to the house of God. While the people are assembling and waiting quietly for the opening of the service, several hymns are rung on the chimes. The prayer hymn is given out by both bells and organ. They are again rung at the time of the offering, such hymns as "I Gave My Life For Thee," and "Savior, Thy Dying Love," being used at that time. They are also rung at the benediction, and while the congregation is leaving the church, hymns are rung that have an appropriate bearing on the theme of the service. In this way all who hear the chimes may follow in spirit our service, and I can imagine many saying, "Lake Avenue Church in now at prayer," "Lake Avenue is making its offering unto the Lord," or "It is benediction time at Lake Avenue Church and the bells are pealing."

Chapter XIX

OFFICES

Nothing reflects the multiplying of activities on the part of modern churches more clearly than the enlarged number of administrative offices which are being provided in modern church buildings. In their effort to provide for all manner of service to the community, the churches must not neglect to make provision for their own administrative needs.

A list of possible administrative rooms is suggestive.

A Pastor's Study.—This is the pastor's private sanctum with his library, desk, etc.

A Pastor's Office.—Many churches are providing a study for the pastor's exclusive use, and also an office in which the pastor may meet visitors and hold conferences.

A Church Office, or Offices, for the associate pastor, the financial secretary, the church stenographer and other employed helpers. Many churches are now employing a corps of paid workers, for whom satisfactory office space must be provided.

The offices of the church should be separately heated, since they may be often in use when other parts of the building will not require to be heated. They should, of course, be amply lighted and ventilated, and they should receive morning sunlight. They should be easily accessible to the public. The church office is usually so arranged as to shield the pastor's study from casual callers and

SUPERINTENDENT'S OFFICE, LAKE AVENUE BAPTIST CHURCH, ROCHESTER, N. Y.

TEACHER TRAINING ROOM, LAKE AVENUE BAPTIST CHURCH, ROCHESTER, N. Y.

THE CHURCH OFFICE, FIRST PRESBYTERIAN CHURCH, NASHVILLE, TENN.
The church office, as distinct from the Pastor's Study, is coming to be an indispensable provision in modern church work.

THE CHURCH OFFICE, FIRST BAPTIST CHURCH, SAN DIEGO, CAL.

This office was especially designed by the Pastor, Dr. W. H. Geistweit. The door at the left leads into the Pastor's Study. With visitors of all kinds, such as come into a down-town church, the counter offers needed protection. This room is close to the main entrance, and is thus easily accessible to the public.

unnecessary interruptions. See especially plans on pages 99 and 152.

An Officer's Room.—Just as banks provide a "directors' room," so churches are providing a "Deacons' Room," or "Stewards' Room," or "Session Room," for the various official meetings of the pastor and the church officers.

A Superintendent's Office.—The superintendent of a large Sunday school, especially if he is regularly employed, ought by all means to have a suitable office.

A Secretary's Office.—Some churches provide, in addition to the office for the general secretary, an office for the secretary of each department in the Sunday school.

A Choir Room.—This room should be ample in size and should provide lockers, or at least some kind of receptacles, for hats and wraps and for the safe keeping of musical supplies. It should, of course, be conveniently located with reference to the choir platform in the main auditorium.

A Janitor's Room.—In modern church and Sunday-school work the janitor has come to be a most important factor. It is economy to make ample provision for the janitor. Some churches provide him comfortable living rooms, so that he may be always available for service. In many churches he must be a high-grade and intelligent man. An easily accessible and suitable room should be offered him, and ample provisions should be made for all storage needs.

Chapter XX

PROVIDING FOR SOCIAL LIFE

One can hardly read the New Testament without being impressed by the place given to social and fellowship service. Modern churches in their increasing emphasis on fellowship service are only returning to the spirit and practice of the New Testament churches.

The kitchen and certain provisions for serving have come to be regarded as essential features in church planning. We will in future no more plan churches without kitchens than we will plan hotels or homes without kitchens. Many churches, if they were asked to choose between their big pipe organ or their kitchen, would find it difficult to decide whether their organ or their social ministry is more essential.

Practical business men will be reluctant to put large sums of money into great buildings which are to stand locked up and dark five or six days out of the week. The conditions of modern homes and present-day home life are such as to make impracticable the free and frequent gatherings for social life which marked the old-time home. A proper social life fostered by the churches may make for fuller fellowship and may contribute to evangelism.

Social Life Departmentized.

Leaders in religious education long ago saw and insisted upon the necessity of departmentizing the Sunday

DEACONS' ROOM, LAKE AVENUE BAPTIST CHURCH, ROCHESTER, N. Y.

A room suitably designed and appropriately furnished is desirable for the meetings of the church officers. This room may well be used as a parlor or for a Sunday-school class and possibly for other purposes, but should be known in the church circles as "The Deacons' Room," or "The Stewards' Room," or "The Session Room."

A few seats such as here shown, judiciously placed in large class rooms, will make a pleasing impression. They will be ready for service when such rooms need to be transformed for social uses.

SOCIAL ROOMS, FIRST BAPTIST CHURCH, SAN DIEGO, CAL.

SERVING ROOM (ADJOINING THE KITCHEN) IN FIRST BAPTIST CHURCH, SPRINGFIELD, MO.

KITCHEN IN LAKE AVENUE BAPTIST CHURCH, ROCHESTER, N. Y.
This kitchen is furnished almost as elaborately and completely as the kitchens in metropolitan hotels.

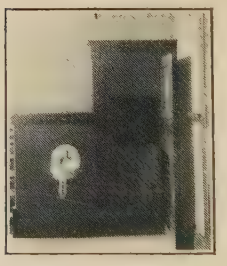
INTERMEDIATE DEPARTMENT, FIRST BAPTIST CHURCH, NASHVILLE, TENN.

This room is used for three distinct purposes: (1) As the assembly room for the Intermediate Department (upper view); (2) as the social and play room for the Intermediate Department (middle view); (3) as the teachers' lunch room (lower view).

A CHURCH PARLOR

Beautiful social rooms like this serve many useful purposes in church life. This room constitutes a part of the varied equipment by means of which the Lake Avenue Baptist Church, Rochester, N. Y., ministers to its community. The room is used on Sundays for a Bible class.

THE JUNIOR DEPARTMENT, CAVALRY BAPTIST CHURCH,
WASHINGTON, D. C.
Temporarily transformed into Banquet Hall.



A USEFUL TYPE OF WALL FOUNTAIN; IN THE FIRST BAPTIST CHURCH,
CLARKSVILLE, TENN.

school with a view to better management and adapted teaching. It is becoming generally recognized that there is the same necessity for departmentizing the social life, for ministering to social needs by departments and through the department organizations. This means that instead of "church socials," we are to have "department socials;" instead of Sunday-school socials, we are to have Intermediate socials, Primary socials, such socials as will call together certain congenial groups.

Sunday-school workers are now so keenly alive to the advantages of departmentization that once this idea of organizing and managing the social life by departments is proposed, they will immediately see its reasonableness. We mention the matter here because of its direct bearing on the planning of new buildings. Instead of providing one very large banquet and social room, the churches are more and more arranging to handle social life and banquets departmentally. Instead of thinking only of the social needs of young people and adults, the churches are coming to provide for a proper social life for all classes from the cradle-roll babies to the aged "shut-ins" of the Home Department. The plans presented in this book may well be examined for suggestions regarding provisions needed for social life.

We indicate here some of the more important rooms which may be provided for social purposes.

The Church Parlors.—These rooms may be used also as class rooms. They should vary in size, and should, of course, be located near the kitchen.

The Women's Room.—The women of the church ought to feel that a room, or suite of rooms, is provided and furnished especially for their use. Here they will hold the meetings of the missionary society, the sewing

circle, the social tea, and other meetings. In this room, as elsewhere throughout the building, the ability and tastes of the congregation must determine the style of finish and furnishings; the ideal would seem to be a simple elegance combined with such conditions as would permit its use for various practical purposes.

The kitchen.—The arrangements may be simple and inexpensive or they may be elaborate and complete. In large buildings dumb waiters or kitchenettes may well serve rooms which are remote from the main kitchen. For evident reasons the kitchen should be easily accessible and well lighted and ventilated. A separate serving room may well be provided. Suggestions as to the dimensions and the proper location of the kitchen may be gleaned from various drawings in these pages.

Chapter XXI

CONVENIENCE HINTS

Thoughtful and yet inexpensive conveniences may add greatly to the pleasure and usefulness of a building. Suggestions may be gleaned from the proposals which follow:

Drinking fountains.—One or more on each floor. See illustration on page 200.

Racks for hats and wraps.—These should be provided in abundance throughout the building. Cloak rooms are desirable, but neat boards along the corridor or department walls with hangers of a proper height for the various departments will be found convenient. Umbrella drips will serve a good purpose. For certain occasions, it is well to use check rooms with some one in charge for the care of hats and wraps.

A door bell.—This may serve two distinct purposes: (1) To summon the janitor or some one within. It is annoying to call at a church and not be able to gain entrance when you know that the person desired is within; (2) As a measure of protection, the bell may, on busy city streets, ring when the door is opened and thus notify the janitor that some one has entered the building.

A receptacle at the door.—A box for mail and other packages to be left at the church.

Built-in blackboards.—In every department room and

in every class room there should be a built-in blackboard with rail for chalk and eraser.

Church and Sunday-school signs. — Every church should have a suitable sign giving the name of the church, the pastor's name and information about the services. It may be needful to have a special sign at the entrance to the Sunday-school section.

Markers for the various departments and class rooms. —The various departments and class rooms should be plainly marked. "Junior Department," for example, neatly painted over the entrance to this department, and a similar sign for all departments and class and special rooms, may serve a good purpose. Strangers looking through the building will appreciate this guidance. Teachers and pupils who have come recently to the school will welcome it.

Kitchenettes on various floors.—There will be in the proper location a well-fitted kitchen. But serving and social life may be desired on any floor. It is no great expense to provide a kitchenette on each floor, so that serving may be done wherever desired. Dumb waiters are sometimes used for this purpose, but it is not always possible to provide these.

Heating.—Where the whole building is not to be kept continuously heated, it is well to make provision by means of a special furnace, a stove or a grate, for the heating of certain rooms which must be frequently used.

Wall space back of platform.—The advantage of having plenty of space back of the platform for superintendents and teachers has been elsewhere pointed out. With little expense the top rail of the blackboard may be made in shape of a channel to receive the rolls of maps, charts, etc., so that they can be hung, stored or

removed easily. Special provision for charts, honor rolls or special features of this kind can be made to order.

Vacuum cleaners.—A vacuum cleaner should be installed where this seems practicable. A portable type is satisfactory and inexpensive. The stationary type, for a large institution, is better and more economical to operate.

Closets for literature.—Each department should be provided with a closet which can be locked, for the storage of literature and other supplies. The shelves should be arranged to receive the special literature of the respective departments.

Arrangements should be made before completion of the building for the hanging of decorations, streamers, maps, stereopticon screens, etc., in the main auditorium, the departments, and the class rooms. Who has not felt the difficulty and embarassment in a great new building when these various decorations are needed? Before the walls are plastered and finished, it is easy to arrange all needed hooks and screws; and this can be done at that time without at all marring the finished walls.

If use of the stereopticon or motion picture machine is contemplated, provisions should be made in advance. Needed electric connections with outlet of proper capacity and conveniently accessible should be devised. It is not difficult to provide for the use of the stereopticon; if a motion picture arrangement is contemplated, it will be well to confer with the manufacturers as regards the size of electric wire, fire-proof booths and other items.

Telephone connections should be arranged with booths on various floors including the janitor's room. In large buildings a special house telephone should be installed.

Many other conveniences will be provided by the

thoughtful architect, such as the control of balcony stairs by means of doors with locks; folding tables for serving which, when not in use, may be stored; clear glass in auditorium and department room doors to prevent collisions and enable late comers to see what is going on inside.

Chapter XXII

SEATS, TABLES AND CABINETS

Because of the importance of seats, tables and cabinets, and because of the difficulty of making satisfactory arrangements for these items of furniture, some suggestions are offered in this chapter.

SEATING FOR THE AUDITORIUM

For the church auditorium, pews are generally preferred. When properly built they are very comfortable. They are economical in that children and adults occupy only so much space as may be needed. Churches which are able to do so have long been accustomed to provide cushions for the pews, thus greatly adding to their comfort.

Opera chairs have for a long time divided honors with the traditional pew. They have by recent improvements been rendered noiseless and more durable than they formerly were. The chair has arm-rests and thus insures against crowding. Unless all of the chairs are of good size, exceptionally large persons may be embarrassed and may be thus kept away from the services. Opera chairs are frequently used in galleries even where pews are used on the main floor.

When aisles converge the chairs are brought into line

on the edge by using chairs of different widths, say some chairs 18 inches wide, while the usual width will be 20 inches. Thus successive tiers of chairs can be made to form a perfect aisle line.

Pews should as a minimum be spaced 2 feet 9 inches from back to back. Opera chairs may, as a minimum, be spaced 2 feet 6 inches from back to back.

HOW TO ESTIMATE SEATING CAPACITY

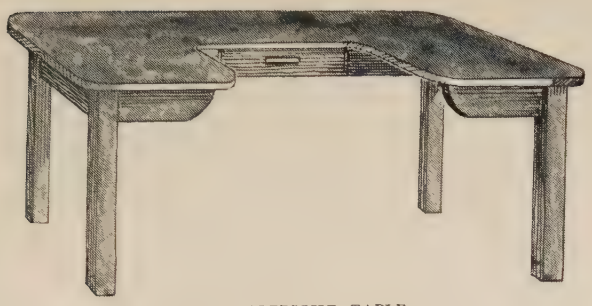
It is commonly supposed that 6 square feet per person is a sufficient allowance for seating. It is really necessary to figure 7 or 8 square feet in the ordinary church auditorium if exact seating capacity is desired; 7 square feet, if straight pews are used, and 8 square feet if curved pews are used, assuming that the platform, aisles and all spare space are included in the estimate of floor space. In department rooms and generally in small rectangular rooms with little lost space, 6 to 7 square feet per person is a reasonable allowance.

A given building will seat more people with straight seating than with curved seating. Mr. Kidder estimates that a room which, with straight seats will accommodate 700 people, will offer only 600 seatings when curved seats are used.

The exact seating capacity of a given room can only be determined by drawing the seats to a scale on the plan, allowing for each sitting 18 inches with pews and 20 inches with chairs. Since seating capacity is so commonly overestimated, it may seem desirable to ask the architect to test in this way the seating capacity of the various rooms in any proposed building. Estimates of seating capacity throughout this book are dependable.

Folding Tables such as we show here are convenient and economical where rooms are to be temporarily fitted up as banquet rooms.

CHAIRS FOR SUNDAY SCHOOL USE.



THE ALBRIGHT TABLE

This table can be manufactured by a local millwright, or it may be ordered from Clanton and Webb, Atlanta, Ga.

THE RICHMOND TABLE

The most graceful and pleasing table yet devised for small classes is the Richmond table shown above. It can be obtained from the Richmond School Supply Company, Richmond, Va., or it may be made in accordance with plans and specifications offered on page 217.

AISLES

No "blind aisles" should be allowed.—These are aisles which open for a given distance and then are closed by longer pews. See for example occasional illustrations in these pages. Plans on pages 80, 92 and 113 offer excellent examples of seating which avoid the blind aisle.

No wide central aisle directly in front of the speaker should be permitted.—The reason for this must be evident. "The center aisle leading to a pulpit violates every principle of the psychology of public speaking."

Aisles should be spaced from ten to eighteen feet apart, according to the arrangement of the room. For reasons which must readily appear, pews should not in any event be more than 16 or 18 feet long.

Main aisles should be four to five feet wide, while secondary aisles may be two or three feet wide.

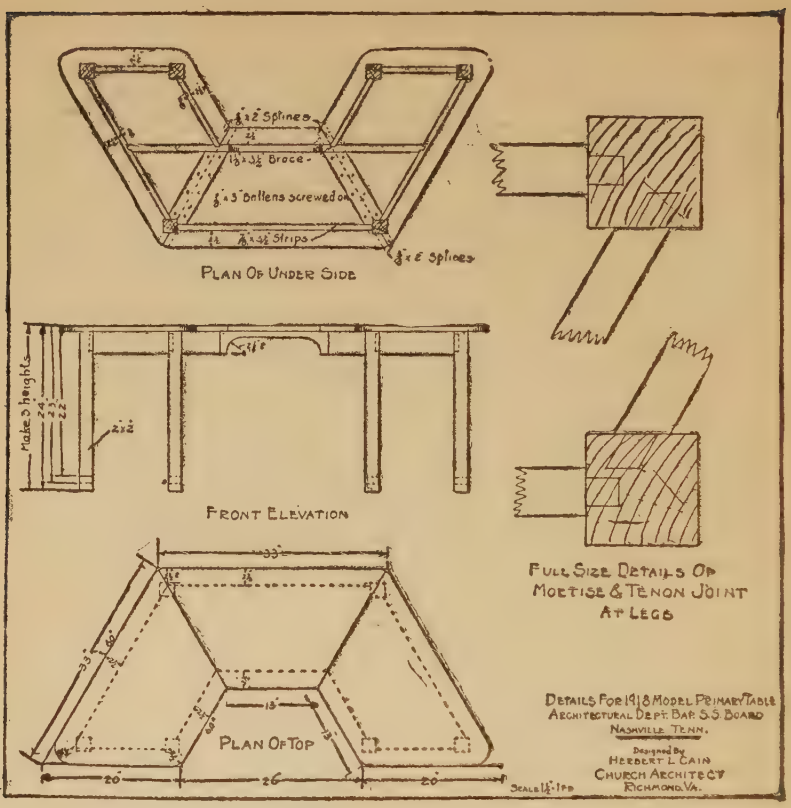
CHAIRS FOR SUNDAY SCHOOL PURPOSES

For Sunday-school assemblies, the folding chair presented on page 209 is acceptable; two or more may be joined together, as in the cut. Single chairs unattached are hardly desirable for assemblies of any kind, since they are so readily displaced, and thus tend to present a disorderly appearance.

Opera chairs or other attractive and comfortable seats may well be provided for adult classes where inclination and financial ability seem to justify.

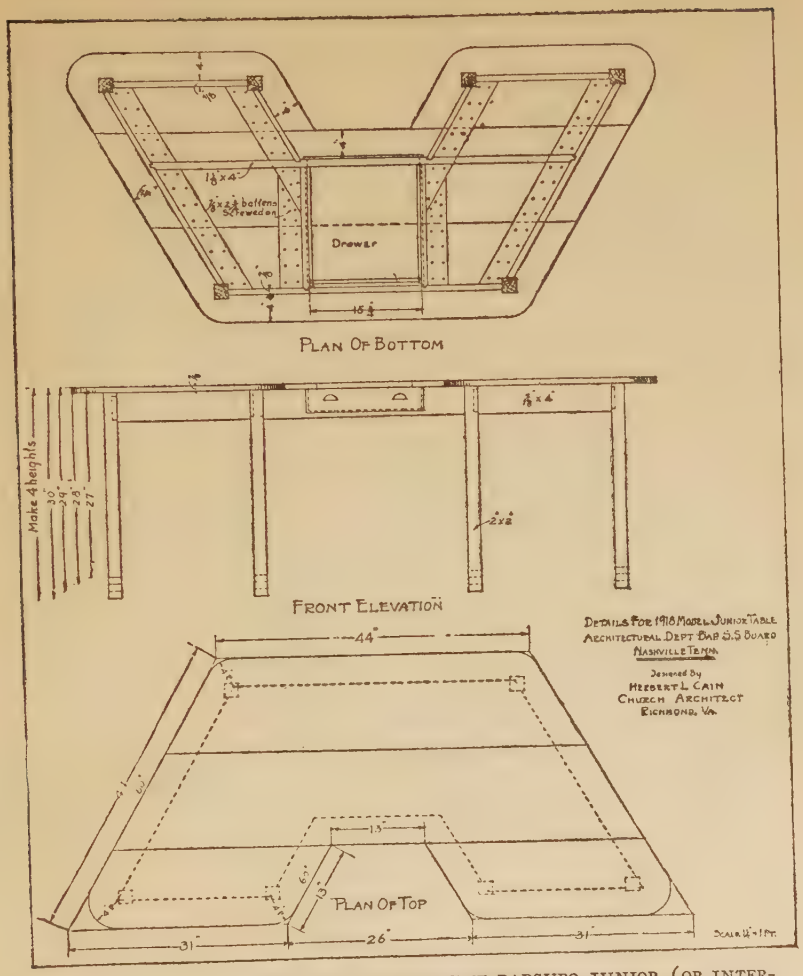
TABLES FOR BANQUETS

As a measure both of convenience and economy it may be desirable to provide a supply of folding tables such

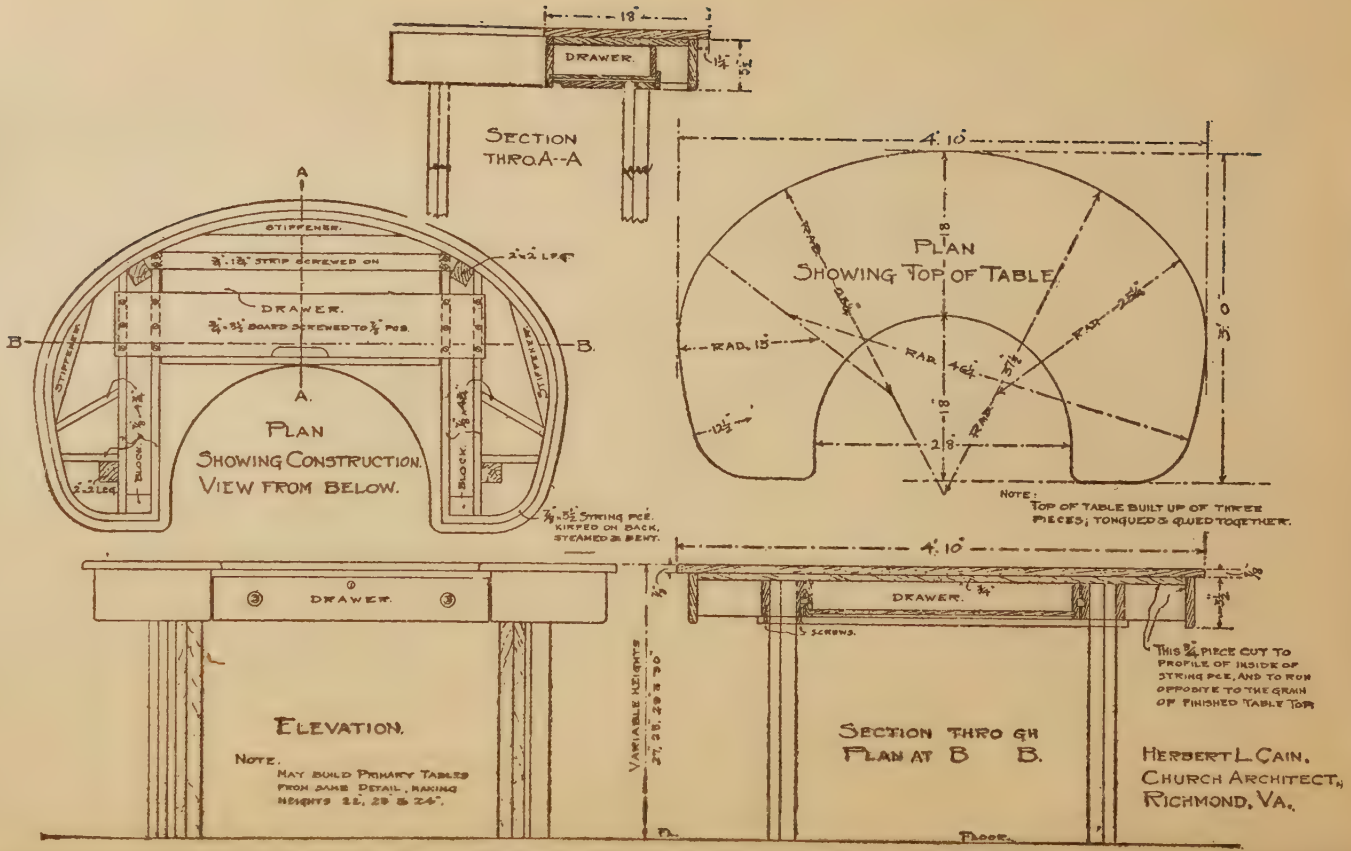


PLANS AND SPECIFICATIONS FOR MAKING THE BAPSUBO PRIMARY TABLE.

The Bapsubo Table has been designed in two sizes, one for Primaries, as is shown above, and one of larger dimensions for Juniors and Intermediates, shown on the following page.



PLANS AND SPECIFICATIONS FOR MAKING THE BAPSUBO JUNIOR (OR INTERMEDIATE) TABLE.



PLANS AND SPECIFICATIONS FOR MAKING THE RICHMOND TABLE. See page 211.

as is illustrated on page 209. The table there shown is "home-made," being designed by Rev. Powhatan James. Similar tables may be purchased from supply houses.

TABLES FOR SUNDAY SCHOOL CLASSES

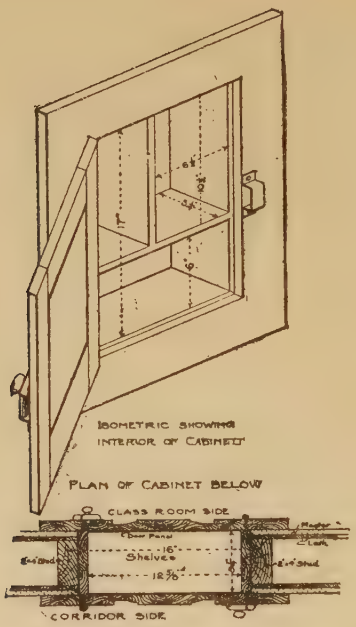
We offer in these pages three types of tables which have met with favor: The Bapsubo table, the Albright table and the Richmond table. These tables are devised to meet the needs of Primary, Junior and Intermediate Classes.

CABINETS

The organist and choir should be provided with a cabinet for the proper care and protection of their musical supplies. Cabinets should, of course, be generously provided for the dining room and kitchen. The general Sunday-school secretary will require ample and well-arranged space for his literature, records and other supplies. In the larger schools each department secretary should have a suitable cabinet for the supplies and varied paraphernalia required in his department. Each class room should be provided with some convenience for the care of class possessions. A drawer with lock and key may be sufficient for small classes; large classes will require more generous provisions.

The Central Christian Church, Lexington, Ky., is furnished with class-room cabinets of design shown in accompanying drawings. Each cabinet has two doors, one opening in the corridor or department assembly room, the other opening in the class room. Literature and other supplies may be left for the class at the pleasure

of the secretary and without disturbing the class; records may be deposited by the class for the secretary to secure



—*Frank L. Smith, Architect.*

at his convenience. The drawings give sufficiently full directions, so that any carpenter may construct and install the cabinet.

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